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OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:06; Search time 43.3077 Seconds

(without alignments)

71.766 Million cell updates/sec

Title: US-09-787-443A-4

Perfect score: 11

Sequence: 1 AGSAVKLKKKA 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 1586107 seqs, 282547505 residues

Word size:

Total number of hits satisfying chosen parameters: 22883

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: A Geneseq 29Jan04:*

1: geneseqp1980s:*

2: geneseqp1990s:*

3: geneseqp2000s:*

4: geneseqp2001s:*

5: geneseqp2002s:*

6: geneseqp2003as:*

7: geneseqp2003bs:*

8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		ક					
Result		Query					
No.	Score	Match	Length	DB	ID	Descripti	.on
1	11	100.0	11		AAY88532	Aay88532	NCAM Iq1
2	11	100.0	11	5	ABG69332	Abg69332	Human neu
3	4	36.4	11	1	AAP40439	Aap40439	Sequence
4	4	36.4	11	2	AAR21404	Aar21404	Sequence
5	4	36.4	11	2	AAR35381	Aar35381	Amphiphil
6	4	36.4	11	2	AAR35380	Aar35380	Amphiphil
7	4	36.4	11	2	AAR35364	Aar35364	Amphiphil
8	4	36.4	11	2	AAR36371	Aar36371	Amphiphil
9	4	36.4	11	2	AAR39074	Aar39074	Biologica

1.0	Λ	26 1	11	2	7 7 D 2 2 O E C	722056	7 l l 1
10	4	36.4	11	2	AAR33956		Amphiphil
11	4	36.4	11	2	AAR33972		Amphiphil
12	4	36.4	11	2	AAR33973	Aar33973	Amphiphil
13	4	36.4	11	2	AAR31146	Aar31146	C-termina
14	4	36.4	11	2	AAR31163	Aar31163	C-termina
15	4	36.4	11	2	AAR31162	Aar31162	C-termina
16	4	36.4	11	2	AAR45132		Amphiphil
17	4	36.4	11	2	AAR45115		Amphiphil
18	4	36.4	11	2	AAR45133		Amphiphil
19		36.4	11	2			
	4				AAR45131		Amphiphil
20	4	36.4	11	2	AAR50562		Amphiphil
21	4	36.4	11	2	AAR50546		Amphiphil
22	4	36.4	11	2	AAR50563		Amphiphil
23	4	36.4	11	2	AAR55986	Aar55986	Ion chann
24	4	36.4	11	2	AAR55970	Aar55970	Ion chann
25	4	36.4	11	2	AAR55987	Aar55987	Ion chann
26	4	36.4	11	2	AAR59065	Aar59065	Cancer tr
27	4	36.4	11	2	AAR59048		Cancer tr
28	4	36.4	$\overline{11}$	2	AAR59064		Cancer tr
29	4	36.4	11	2	AAR56948		Peptide w
30	4	36.4	11	2	AAR56931		-
				2			Peptide w
31	4	36.4	11		AAR56947		Peptide w
32	4	36.4	11	2	AAR50431		Amphiphil
33	4	36.4	11	2	AAR50448		Amphiphil
34	4	36.4	11	2	AAR50447		Amphiphil
35	4	36.4	11	2	AAR79718	Aar79718	Optimal p
36	4	36.4	11	2	AAW03066	Aaw03066	Polycatio
37	4	36.4	11	2	AAR90267	Aar90267	Ion-chann
38	4	36.4	11	2	AAR90259	Aar90259	Ion-chann
39	4	36.4	11	2	AAR91792		Ion-chann
40	4	36.4	11	2	AAR90260		Ion-chann
41	4	36.4	11	2	AAR91797		Ion-chann
42	4	36.4	11	2	AAR90137		Ion-chann
43	4	36.4	11	2			Ion-chann
					AAR90266		
44	4	36.4	11	2	AAR90258		Ion-chann
45	4	36.4	11	2	AAR90269		Ion-chann
46	4	36.4	11	2	AAR99096		Magainin-
47	4	36.4	11	2	AAR99123		Magainin-
48	4	36.4	11	2	AAW04041	Aaw04041	Antifunga
49	4	36.4	11	2	AAW39163	Aaw39163	RHAMM bin
50	4	36.4	11	2	AAW44580	Aaw44580	Anti-fung
51	4	36.4	11	2	AAW43762	Aaw43762	Bacterici
52	4	36.4	11	2	AAW65554	Aaw65554	Multiply
53	4	36.4	11	2	AAW66522		Amphiphil
5 4	4	36.4	11	2	AAW66523		Amphiphil
55	4	36.4	11	2	AAW66297		Amphiphil
56	4	36.4	11	2	AAW66482		Amphiphil
57		36.4		2	AAW75190		
	4		11				Fragment
58	4	36.4	11	2	AAY00557	_	Antifunga
59	4	36.4	11	2	AAY10749		Peptide u
60	4	36.4	11	2	AAY10769	-	Peptide u
61	4	36.4	11	2	AAY10785	-	Peptide u
62	4	36.4	11	2	AAY10780	Aay10780	Peptide u
63	4	36.4	11	2	AAY10750	Aay10750	Peptide u
64	4	36.4	11	2	AAY10766	-	Peptide u
65	4	36.4	11	2	AAY10733	-	Peptide u
66	4	36.4	11	2	AAY10751	-	Peptide u
	-	55.4	**			Adytorsi	reperde d

	67	4	36.4	11	2	AAY10767	Aay10767	Peptide u
	68	4	36.4	11	3	AAB26808	Aab26808	Phosphory
	69	4	36.4	11	3	AAY88559	Aay88559	NCAM Ig1
	70	4	36.4	11	3	AAY67919	Aay67919	Cyclin co
	71	4	36.4	11	3	AAY95530	Aay95530	Transacti
	72	4	36.4	11	4	AAB65481	Aab65481	Anti-fung
	73	4	36.4	11	4	AAU00690	Aau00690	Thymosin
	74	4	36.4	11	4	ABP19373	Abp19373	HIV B62 s
	75	4	36.4	11	4	ABP13804	Abp13804	HIV A02 s
	76	4	36.4	11	4	ABP18275	Abp18275	HIV B58 s
	77	4	36.4	11	4	ABP13794	Abp13794	HIV A02 s
	78	4	36.4	11	4	ABP13805	Abp13805	HIV A02 s
,	79	4	36.4	11	4	ABU54031	Abu54031	Human DNA
	80	4	36.4	11	5	ABB74780	Abb74780	Nuclear p
	81	4	36.4	11	5	ABB74670	Abb74670	Transcrip
	82	4	36.4	11	5	ABB74833	Abb74833	Nuclear p
	83	4	36.4	11	5	ABB74482	Abb74482	DNA repai
	84	4	36.4	11	5	AAU97241	Aau97241	Peptide e
	85	4	36.4	11	5	AAE23798	Aae23798	Thymosin-
	86	4	36.4	11	5	AAU75185	Aau75185	Amino aci
	87	4	36.4	11	5	ABG60826	Abg60826	Hyalauron
	88	4	36.4	11	5	AAE24225	Aae24225	Human HIF
	89	4	36.4	11	5	ABP55000	Abp55000	Cyclin de
	90	4	36.4	11	5	AAE22462		Biologica
	91	4	36.4	11	5	AAE22446	Aae22446	Biologica
	92	4	36.4	11	5	AAE22464	Aae22464	Biologica
	93	4	36.4	11	5	AAE22482	Aae22482	Biologica
	94	4	36.4	11	5	AAE22498	Aae22498	Biologica
	95	4	36.4	11	5	AAE22480	Aae22480	Biologica
	96	4	36.4	11	5	AAE22463	Aae22463	Biologica
	97	4	36.4	11	5	AAE22479	Aae22479	Biologica
	98	4	36.4	11	5	AAE22493	Aae22493	Biologica
	99	4	36.4	11	6	AAE34316	Aae34316	Human ops
	100	4	36.4	11	6	ABB99794	Abb99794	Peptide u

ALIGNMENTS

```
RESULT 1
AAY88532
    AAY88532 standard; peptide; 11 AA.
ID
XX
AC
    AAY88532;
XX
DT
     07-AUG-2000 (first entry)
XX
DE
    NCAM Igl binding peptide #4.
XX
KW
     NCAM; neural cell adhesion molecule; Igl; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
XX
OS
     Synthetic.
XX
```

```
WO200018801-A2.
PN
XX
     06-APR-2000.
PD
XX
                    99WO-DK000500.
PF
     23-SEP-1999;
XX
     29-SEP-1998;
                    98DK-00001232.
PR
                    99DK-00000592.
     29-APR-1999;
PR
XX
     (RONN/) RONN L C B.
PΑ
     (BOCK/) BOCK E.
PA
     (HOLM/) HOLM A.
PA
     (OLSE/) OLSEN M.
PΑ
     (OSTE/) OSTERGAARD S.
PΑ
     (JENS/) JENSEN P H.
PΑ
PA
     (POUL/) POULSEN F M.
     (SORO/) SOROKA V.
PΑ
     (RALE/) RALETS I.
PA
     (BERE/) BEREZIN V.
PA
XX
```

Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH; Poulsen FM, Soroka V, Ralets I, Berezin V;

DR WPI; 2000-293111/25.

PI

PI XX

XX

РΤ

PT

PT XX

PS XX

CC

CC CC

CC XX Compositions that bind neural cell adhesion molecules useful for treating disorders of the nervous system and muscles e.g. Alzheimer's and Parkinson's diseases.

Example 4; Page 25; 119pp; English.

Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule. NCAM is found in three forms, two of which are transmembrane forms, while the third is attached via a lipid anchor to the cell membrane. All three NCAM forms have an extracellular structure consisting five immunoglobulin domains (Ig domains). The Ig domains are numbered 1 to 5 from the Nterminal. The present sequence represents a peptide which binds to the NCAM Ig1 domain. The peptide can be used in a compound which binds to NCAM-Ig1/Ig2 domains, and is capable of stimulating or promoting neurite outgrowth from NCAM presenting cells, and is also capable of promoting the proliferation of NCAM presenting cells. The compound may be used in the treatment of normal, degenerated or damaged NCAM presenting cells. The compound may in particular be used to treat diseases of the central and peripheral nervous systems such as post operative nerve damage, traumatic nerve damage, impaired myelination of nerve fibres, conditions resulting from a stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis, nerve degeneration associated with diabetes mellitus, disorders affecting the circadian clock or neuro-muscular transmission and schizophrenia. Conditions affecting the muscles may also be treated with the compound, such as conditions associated with impaired function of neuromuscular connections (e.g. genetic or traumatic shock or traumatic atrophic muscle disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also be treated using the compound. The compound is used in a prosthetic nerve guide, and also to stimulate the ability to learn, and to stimulate the memory of a subject

```
SQ
     Sequence 11 AA;
                          100.0%; Score 11; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 0.00017;
                                                                             0;
                               0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
          11; Conservative
           1 AGSAVKLKKKA 11
Qγ
             1 AGSAVKLKKKA 11
Db
RESULT 2
ABG69332
ID
     ABG69332 standard; peptide; 11 AA.
XX
AC
     ABG69332;
XX
DT
     21-OCT-2002 (first entry)
XX
     Human neural cell adhesion molecule (NCAM) peptide #4.
DE
XX
     Human; neural cell adhesion molecule; NCAM; heart muscle cell survival;
KW
     acute myocardial infarction; central nervous system disorder; stroke;
KW
     peripheral nervous system disorder; postoperative nerve damage;
KW
     traumatic nerve damage; spinal cord injury; nerve fibre; schizophrenia;
KW
     postischaemic damage; multiinfarct dementia; multiple sclerosis;
KW
     nerve degeneration; diabetes mellitus; neuro-muscular degeneration;
KW
     Alzheimer's disease; Parkinson's disease;
KW
     Huntington's disease. atrophic muscle disorder; gonad degeneration;
KW
KW
     nephrosis.
XX
OS
     Homo sapiens.
XX
     WO200247719-A2.
PN
XX
     20-JUN-2002.
PD
XX
     12-DEC-2001; 2001WO-DK000822.
PF
XX
     12-DEC-2000; 2000DK-00001863.
PR
XX
     (ENKA-) ENKAM PHARM AS.
PΑ
XX
     Bock E, Berezin V, Kohler LB;
PI
XX
DR
     WPI; 2002-583473/62.
XX
     Use of a compound comprising a peptide of neural cell adhesion molecule,
PT
     in the preparation of medicament for preventing death of cells presenting
PT
     NCAM or NCAM ligand and treating central nervous system diseases.
PT
XX
     Disclosure; Page 15; 57pp; English.
PS
XX
     The invention relates to use of a compound (I) comprising a peptide which
CC
     comprises at least 5 contiguous amino acid residues of a sequence of the
CC
     neural cell adhesion molecule (NCAM), its fragment, variant or its mimic,
CC
```

for the preparation of a medicament for preventing death of cells

```
presenting the NCAM or an NCAM ligand. (I) is useful in the preparation
     of a medicament for preventing death of cells presenting the NCAM or an
CC
CC
     NCAM ligand. The medicament is for the stimulation of the survival of
     heart muscle cells, such as survival after acute myocardial infarction.
CC
     The medicament is for the treatment of diseases or conditions of the
CC
     central and peripheral nervous system, such as postoperative nerve
CC
     damage, traumatic nerve damage, e.g. resulting from spinal cord injury,
CC
     impaired myelination of nerve fibres, postischaemic damage, e.g.
CC
     resulting from a stroke, multiinfarct dementia, multiple sclerosis, nerve
CC
     degeneration associated with diabetes mellitus, neuro-muscular
CC
     degeneration, schizophrenia, Alzheimer's disease, Parkinson's disease and
CC
     Huntington's disease. The medicament is for the treatment of diseases or
CC
     conditions of the muscles including conditions with impaired function of
CC
     neuro-muscular connections, such as genetic or traumatic atrophic muscle
CC
     disorders, and for the treatment of diseases of conditions of various
CC
CC
     organs, such as degenerative conditions of the gonads, pancreas (e.g.
CC
     diabetes mellitus type I and II) and kidney (e.g. nephrosis). ABG69329-
CC
     ABG69352 represent human NCAM peptides of the invention
XX
     Sequence 11 AA;
SO
                          100.0%;
                                   Score 11; DB 5; Length 11;
  Query Match
                                   Pred. No. 0.00017;
  Best Local Similarity
                          100.0%;
                                                                              0;
            11; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
            1 AGSAVKLKKKA 11
Qу
              1 AGSAVKLKKKA 11
Db
RESULT 3
AAP40439
     AAP40439 standard; peptide; 11 AA.
XX
AC
     AAP40439;
XX
DТ
     25-MAR-2003
                  (revised)
DТ
     03-OCT-2002
                  (revised)
DT
     14-FEB-1992
                  (first entry)
XX
DΕ
     Sequence of peptide with immunomodulating activity.
XX
KW
     Immunopotentiator; antimicrobial; antiviral; immunomodulator.
XX
OS
     Synthetic.
XX
PN
     EP103858-A.
XX
PD
     28-MAR-1984.
XX
                    83EP-00109147.
PF
     16-SEP-1983;
XX
PR
     17-SEP-1982;
                    82JP-00162873.
PR
     25-NOV-1982;
                    82JP-00207335.
XX
     (FUJI ) FUJISAWA PHARM CO LTD.
PΑ
XX
```

```
Hashimoto M,
                   Hemmi K;
ΡI
XX
     WPI; 1984-083584/14.
DR
XX
     Penta- to tri-deca:peptide(s) - useful as strong immuno-potentiators esp.
PΤ
     against microbes and viruses.
PT
XX
     Claim 1; Page 82; 87pp; English.
PS
XX
     The first AA of each claimed peptide is bonded to H and the final AA is
CC
     bonded to OH. The peptides are useful as antimicrobial and antiviral
CC
     agents. Dose is 0.1-1000 mg/kg. daily. (Updated on 03-OCT-2002 to add
CC
     missing OS field.) (Updated on 25-MAR-2003 to correct PA field.)
CC
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.6e+03;
                                                                  0; Gaps
  Matches
             4; Conservative 0; Mismatches
                                                 0; Indels
                                                                              0;
            6 KLKK 9
Qу
              +1111
            3 KLKK 6
Db
RESULT 4
AAR21404
     AAR21404 standard; peptide; 11 AA.
XX
AC
     AAR21404;
XX
DT
     25-MAR-2003 (revised)
DT
     09-JAN-2003 (revised)
DT
     16-MAY-1992 (first entry)
XX
     Sequence of amphiphilic peptide SEQ ID No. 67 with C-terminal amide, may
DE
     be acetylated at N-terminus.
DΕ
XX
     Amphiphilic peptide; anti-microbial; anti-viral; anti-tumour; spermicide;
KW
     wound healing; sterilant.
KW
XX
     Synthetic.
OS
XX
     WO9201462-A.
PN
XX
PD
     06-FEB-1992.
XX
     19-JUL-1990;
                    90US-00554422.
PF
XX
     19-JUL-1990;
                    90US-00554422.
PR
PR
     08-JUL-1991;
                    91US-00725331.
XX
     (SCRI ) SCRIPPS RES INST.
PA
XX
PΙ
     Houghten RA, Blondelle S;
XX
DR
     WPI; 1992-064700/08.
```

```
XX
     Method for inhibiting target cell and virus growth - comprises
PT
     administering amphiphilic peptide compsns, useful for treating viral and
PT
     phytopathogenic infections, tumours and burns.
PT
XX
     Disclosure; Page 63; 72pp; English.
PS
XX
CC
     The peptides of the invention are effective pharmaceuticals having anti-
CC
     microbial, anti-viral and anti-tumour activity. They are also useful for
     inhibiting, preventing or destroying the motility of sperm and hence have
CC
     application in a spermicide preparation. They also have anti-parasitic
CC
     activity and are useful in wound healing, as preservatives and sterilants
CC
CC
     and to inhibit growth of phytopathogenic microorganisms. AAR20969 and
CC
     AAR20970 were published in Haighten and Ostresh, Bio Chromatography, Vol
     2, issue 2, page 80-83, 1987. (Updated on 09-JAN-2003 to add missing OS
CC
     field.) (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-
CC
CC
     2003 to correct PA field.)
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
            4; Conservative 0; Mismatches
                                                      Indels
                                                                              0;
                                                   0;
                                                                     Gaps
            6 KLKK 9
Qy
              Db
            3 KLKK 6
RESULT 5
AAR35381
ID
    AAR35381 standard; peptide; 11 AA.
XX
AC
    AAR35381;
XX
DT
     25-MAR-2003
                  (revised)
DT
     07-JUN-1993
                  (first entry)
XX
DE
     Amphiphilic peptide #112 used to treat oral infections.
XX
KW
     Adverse oral conditions; amphipathic; anti-bacterial; anti-viral;
KW
     anti-fungal; dental plaque; dental caries; periodontal disease;
KW
     gingivitis; ionophore; ion-channel forming.
XX
OS
     Synthetic.
XX
PN
    WO9301723-A1.
XX
PD
     04-FEB-1993.
XX
PF
     09-JUL-1992;
                    92WO-US005757.
XX
PR
     25-JUL-1991;
                    91US-00735070.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Berkowitz B, Jacob L;
```

```
XX
DR
     WPI; 1993-058434/07.
XX
     Peptide(s) for prophylaxis and treatment of oral disorders - used for
PT
     periodontal disease, plaque, dental caries, gingivitis, etc.
PT
XX
     Claim 2; Page 129; 143pp; English.
PS
XX
     This is a specific example of a highly generic formula covering preferred
CC
     amphiphilic peptides for use in preventing or treating adverse oral
CC
     conditions. The peptide is an ionophore (i.e. an ion-channel forming
CC
     peptide) which has anti-bacterial, anti-viral, anti-fungal activity,
CC
     etc. making it suitable for use in oral compositions to treat or prevent
CC
     periodontal disease, plaque, dental caries, halitosis and gingivitis. The
CC
     anti-bacterial action will also be useful against bacteria associated
CC
     with dental implant infections and the peptides can stimulate the healing
CC
CC
     of wounds in the oral cavity. (Updated on 25-MAR-2003 to correct PN
CC
     field.)
XX
SO
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
                               0; Mismatches
                                                                              0;
             4; Conservative
                                                   0; Indels
                                                                  0; Gaps
            6 KLKK 9
Qу
              +111
            7 KLKK 10
Db
RESULT 6
AAR35380
     AAR35380 standard; peptide; 11 AA.
XX
AC
     AAR35380;
XX
DT
     25-MAR-2003 (revised)
DT
     07-JUN-1993
                  (first entry)
XX
     Amphiphilic peptide #111 used to treat oral infections.
DE
XX
     Adverse oral conditions; amphipathic; anti-bacterial; anti-viral;
KW
     anti-fungal; dental plaque; dental caries; periodontal disease;
KW
     gingivitis; ionophore; ion-channel forming.
KW
XX
OS
     Synthetic.
XX
     W09301723-A1.
PN
XX
     04-FEB-1993.
PD
XX
     09-JUL-1992;
                    92WO-US005757.
PF
XX
     25-JUL-1991;
                    91US-00735070.
PR
XX
     (MAGA-) MAGAININ PHARM INC.
PA
XX
```

```
XX
DR
     WPI; 1993-058434/07.
XX
     Peptide(s) for prophylaxis and treatment of oral disorders - used for
PT
     periodontal disease, plaque, dental caries, gingivitis, etc.
PT
XX
PS
     Claim 2; Page 128; 143pp; English.
XX
     This is a specific example of a highly generic formula covering preferred
CC
CC
     amphiphilic peptides for use in preventing or treating adverse oral
     conditions. The peptide is an ionophore (i.e. an ion- channel forming
CC
     peptide) which has anti-bacterial, anti-viral, anti-fungal activity,
CC
CC
     etc. making it suitable for use in oral compositions to treat or prevent
     periodontal disease, plaque, dental caries, halitosis and gingivitis. The
CC
CC
     anti-bacterial action will also be useful against bacteria associated
     with dental implant infections and the peptides can stimulate the healing
CC
CC
     of wounds in the oral cavity. (Updated on 25-MAR-2003 to correct PN
CC
     field.)
XX
SO
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
            4; Conservative 0; Mismatches
                                                   0; Indels
                                                                              0;
  Matches
                                                                  0; Gaps
            6 KLKK 9
Qу
              1111
            7 KLKK 10
Db
RESULT 7
AAR35364
     AAR35364 standard; peptide; 11 AA.
XX
AC
     AAR35364;
XX
DT
     25-MAR-2003
                  (revised)
DT
     07-JUN-1993
                 (first entry)
XX
DE
     Amphiphilic peptide #95 used to treat oral infections.
XX
KW
     Adverse oral conditions; amphipathic; anti-bacterial; anti-viral;
KW
     anti-fungal; dental plaque; dental caries; periodontal disease;
KW
     gingivitis; ionophore; ion-channel forming.
XX
OS
     Synthetic.
XX
PN
     WO9301723-A1.
XX
PD
     04-FEB-1993.
XX
PF
     09-JUL-1992;
                    92WO-US005757.
XX
PR
     25-JUL-1991;
                    91US-00735070.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
```

PΙ

Berkowitz B, Jacob L;

```
ΡI
     Berkowitz B, Jacob L;
XX
     WPI; 1993-058434/07.
DR
XX
     Peptide(s) for prophylaxis and treatment of oral disorders - used for
PT
PT
     periodontal disease, plaque, dental caries, gingivitis, etc.
XX
     Claim 2; Page 122; 143pp; English.
PS
XX
     This is a specific example of a highly generic formula covering preferred
CC
     amphiphilic peptides for use in preventing or treating adverse oral
CC
CC
     conditions. The peptide is an ionophore (i.e. an ion- channel forming
     peptide) which has anti-bacterial, anti-viral, anti-fungal activity,
CC
     etc. making it suitable for use in oral compositions to treat or prevent
CC
     periodontal disease, plaque, dental caries, halitosis and gingivitis. The
CC
CC
     anti-bacterial action will also be useful against bacteria associated
     with dental implant infections and the peptides can stimulate the healing
CC
     of wounds in the oral cavity. (Updated on 25-MAR-2003 to correct PN
CC
CC
     field.)
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
                                 0; Mismatches
                                                       Indels
                                                                  0; Gaps
                                                                              0;
             4; Conservative
                                                    0;
            6 KLKK 9
Qу
              1111
            3 KLKK 6
Db
RESULT 8
AAR36371
     AAR36371 standard; peptide; 11 AA.
XX
AC
     AAR36371;
XX
DT
     25-MAR-2003
                 (revised)
                 (first entry)
DT
     24-AUG-1993
XX
     Amphiphilic ion channel forming peptide.
DE
XX
     Growth; inhibition; antibiotic; fungi; magainin; XPF; PGLa; CPF;
KW
     tetracycline; pseudomonic acid; neomycin.
KW
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
     Key
FT
     Modified-site
FT
                     /note= "may be acylated"
FT
     Modified-site
FT
                     /note= "may be amidated"
XX
PN
     W09307892-A1.
XX
PD
     29-APR-1993.
```

XX

```
XX
PF
     16-OCT-1992;
                    92WO-US008823.
XX
     16-OCT-1991;
                    91US-00778771.
PR
XX
     (CHIL-) CHILDRENS HOSPITAL PHILADELPHIA.
PΑ
XX
PI
     Zasloff M, Berkowitz B;
XX
     WPI; 1993-152183/18.
DR
XX
     Inhibiting growth of bacteria - by co-administration of antibiotic and
PT
     ion channel-forming peptide, e.g. magainin.
РΤ
XX
PS
     Disclosure; Page 113; 125pp; English.
XX
CC
     The sequence is that of a basic polypeptide of at least 8 hydrophobic
CC
     amino acids and at least 8 hydrophilic amino acids. The peptide is
CC
     amphiphilic, positively charged and ion channel-forming and may be used
     in a compsn. with an antibiotic which is not an ion channel forming
CC
     peptide, to inhibit the growth of target cells. The peptide is pref. a
CC
     magainin peptide, XPF, PGLa or CPF peptide. The peptide and antibiotic
CC
     potentiate each other, i.e. interaction of the peptide with the membranes
CC
     of bacterial cells facillitates penetration of the cells by the
CC
     antibiotic. The compsn. thus requires less antibiotic and may have
CC
CC
     extended range cf. the antibiotic alone. Apart from therapeutic use the
     compsns. can be used as preservatives or sterilants. See also AAR36281-
CC
     380. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
     Sequence 11 AA;
SQ
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             4: Conservative
                              0; Mismatches
            6 KLKK 9
Qу
              3 KLKK 6
Db
RESULT 9
     AAR39074 standard; peptide; 11 AA.
XX
AC
     AAR39074;
XX
DТ
     25-MAR-2003
                 (revised)
DT
     08-NOV-1993
                 (first entry)
XX
     Biologically active amphiphilic peptide.
DE
XX
     Synergistic antimicrobial composition; compsn; chelating agent;
KW
     combination; preservative; sterilant; animal; plant; infection; control;
ΚW
     treatment; prevention; external burns; eye infections.
KW
XX
OS
     Synthetic.
XX
```

```
FH
                     Location/Qualifiers
     Modified-site
FT
                     /note= "N-terminal may be acetylated"
FT
     Modified-site
FT
FT
                     /note= "C-terminal may be amidated"
XX
     W09311783-A1.
PN
XX
     24-JUN-1993.
PD
XX
                    92WO-US010427.
PF
     03-DEC-1992;
XX
                    91US-00803629.
PR
     09-DEC-1991;
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Berkowitz B;
XX
     WPI; 1993-213816/26.
DR
XX
     Synergistic antimicrobial compsn. for treating or preventing infection of
PT
     burns - contg. amphiphilic peptide or protein e.g. magainin peptide and
PT
PT
     chelating agent.
XX
     Example; Page 109; 122pp; English.
PS
XX
CC
     The sequence is that of a biologically active amphiphilic peptide which
     is used in a synergistic antimicrobial compsn. with a chelating agent.
CC
CC
     The chelating agent potentiates the activity of the peptide by binding
     inhibitory Ca/Mg ions and may also increase permeability of the target
CC
     cells to the peptide. The compsn. is active against a wide range of
CC
     microorganisms (esp. bacteria) and can be used as a preservative or
CC
CC
     sterilant, or to control infections in animals or plants. Particular
     applications. are to treat/prevent infections of external burns and
CC
CC
     treatment of eye infections e.g. where the pathogen is Pseudomonas
     aeruginosa, Staphylococcus aureus, Streptococcus or Neisseria
CC
     gonorrhoeae. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
            4; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
 Matches
Qу
            6 KLKK 9
              +1111
Db
            3 KLKK 6
RESULT 10
AAR33956
     AAR33956 standard; peptide; 11 AA.
ID
XX
AC
     AAR33956;
XX
DT
     25-MAR-2003 (revised)
DT
     21-JUL-1993 (first entry)
```

XX Amphiphilic peptide X10. #1. DEXX Hydrophobic; hydrophilic; neutral; X10; ionophore; channel-forming; KW human; virus; antimicrobial; antiviral; antibacterial; antitumour; KW antiparasitic; spermicide; preservative; sterilant; disinfectant; KW wound healing; burn; infection; eye; cysts; spores; trophozoites; plants; KW KW contamination. XXOS Synthetic. XX FH Kev Location/Qualifiers FTModified-site FT/note= "May be acetylated" FTModified-site FT/note= "May be amidated" XX WO9305802-A1. PNXX 01-APR-1993. PDXX PF04-SEP-1992; 92WO-US007622. XX 13-SEP-1991; 91US-00760054. PR 92US-00870960. PR 20-APR-1992; XX (MAGA-) MAGAININ PHARM INC. PAXX PIMaloy WL, Kari UP, Williams JI; XX WPI; 1993-117245/14. DR XX New biologically active amphiphilic peptide cpds. - having ion channel-PTforming properties used for inhibiting growth of target cells, virus or PTPTviral-infected cells. XX PS Claim 1; Page 23; 46pp; English. XX The sequences given in AAR33956-59 are examples of biologically active CC peptides which correspond to the generic sequence; R1-R2-R2-R1-R2-R2-R1-CCR1-R2-R1-R1 where R1 = a hydrophobic amino acid; and R2 = a basic CC hydrophilic or neutral hydrophilic amino acid. This basic structure was CCCCdesignated X10. These peptides are ionophores ie. they have channelforming properties. The peptides can be administered to a host, eg, CChumans, to inhibit the growth of a target cell, virus or virally infected CC CC cell. They can be used as antimicrobial, antiviral agents, antibacterial CCagents, antitumour agents, antiparasitic agents, and as spermicides. They can be used as preservatives or sterilants or disinfectants. These CCpeptides can also be used to promote or stimulate healing of wounds, to CC treat and/or prevent prevent skin or burn infections, to prevent or treat CC CC eye infections and to kill cysts, spores or trophozoites of infection causing organisms. The peptides may also be administered to plants to CCprevent or treat microbial, viral or parasitic contamination. (Updated on CCCC 25-MAR-2003 to correct PN field.) XX

SQ

Sequence 11 AA;

```
36.4%; Score 4; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
             4; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            6 KLKK 9
Qу
              3 KLKK 6
Db
RESULT 11
AAR33972
ID
     AAR33972 standard; peptide; 11 AA.
XX
AC
     AAR33972;
XX
     25-MAR-2003 (revised)
DT
DT
     21-JUL-1993 (first entry)
XX
DE
     Amphiphilic peptide (e).
XX
     Hydrophobic; hydrophilic; neutral; (e); ionophore; channel-forming;
KW
     human; virus; antimicrobial; antiviral; antibacterial; antitumour;
ΚW
     antiparasitic; spermicide; preservative; sterilant; disinfectant;
KW
     wound healing; burn; infection; eye; cysts; spores; trophozoites; plants;
KW
KW
     contamination.
XX
     Synthetic.
OS
XX
                     Location/Qualifiers
FH
     Key
     Modified-site
FT
                     /note= "May be acetylated"
FT
FT
     Modified-site
                     /note= "May be amidated"
FT
XX
     WO9305802-A1.
PN
XX
PD
     01-APR-1993.
XX
PF
                    92WO-US007622.
     04-SEP-1992;
XX
     13-SEP-1991;
                    91US-00760054.
PR
                    92US-00870960.
PR
     20-APR-1992;
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Maloy WL, Kari UP, Williams JI;
XX
DR
     WPI; 1993-117245/14.
XX
     New biologically active amphiphilic peptide cpds. - having ion channel-
PT
     forming properties used for inhibiting growth of target cells, virus or
PT
     viral-infected cells.
PT
XX
     Claim 27; Page 33; 46pp; English.
PS
XX
     This sequence is an example of a biologically active peptide which
CC
CC
     corresponds to the generic sequence; R1-R2-R2-R1-R1-R2-R2-R1-R2-R2-R1
```

```
where R1 = a hydrophobic amino acid; and R2 = a basic hydrophilic or
CC
     neutral hydrophilic amino acid. This basic structure was designated (e).
CC
     Peptides such as this are ionophores ie. they have channel-forming
     properties. The peptides can be administered to a host, eg, humans, to
CC
     inhibit the growth of a target cell, virus or virally infected cell. They
CC
     can be used as antimicrobial, antiviral agents, antibacterial agents,
CC
     antitumour agents, antiparasitic agents, and as spermicides. They can be
CC
     used as preservatives or sterilants or disinfectants. These peptides can
CC
     also be used to promote or stimulate healing of wounds, to treat and/or
CC
     prevent prevent skin or burn infections, to prevent or treat eye
CC
     infections and to kill cysts, spores or trophozoites of infection causing
CC
     organisms. The peptides may also be administered to plants to prevent or
CC
     treat microbial, viral or parasitic contamination. (Updated on 25-MAR-
CC
     2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.6e+03;
                                0; Mismatches
                                                                              0;
             4; Conservative
                                                   0; Indels
                                                                  0; Gaps
            6 KLKK 9
Qу
              111
            7 KLKK 10
Db
RESULT 12
AAR33973
     AAR33973 standard; peptide; 11 AA.
XX
AC
     AAR33973;
XX
DT
     25-MAR-2003 (revised)
                  (first entry)
DT
     21-JUL-1993
XX
DΕ
     Amphiphilic peptide (e), #2.
XX
KW
     Hydrophobic; hydrophilic; neutral; (e); ionophore; channel-forming;
     human; virus; antimicrobial; antiviral; antibacterial; antitumour;
KW
     antiparasitic; spermicide; preservative; sterilant; disinfectant;
KW
     wound healing; burn; infection; eye; cysts; spores; trophozoites; plants;
KW
     contamination.
KW
XX
OS
     Synthetic.
XX
FH
     Kev
                     Location/Qualifiers
FT
     Modified-site
FT
                     /note= "May be acetylated"
FT
     Modified-site
FT
                     /note= "May be amidated"
XX
ΡN
     WO9305802-A1.
XX
     01-APR-1993.
PD
XX
                    92WO-US007622.
PF
     04-SEP-1992;
XX
```

```
PR
     13-SEP-1991;
                    91US-00760054.
PR
     20-APR-1992;
                    92US-00870960.
XX
     (MAGA-) MAGAININ PHARM INC.
PA
XX
PΙ
    Maloy WL, Kari UP, Williams JI;
XX
    WPI; 1993-117245/14.
DR
XX
     New biologically active amphiphilic peptide cpds. - having ion channel-
PT
     forming properties used for inhibiting growth of target cells, virus or
PT
     viral-infected cells.
PT
XX
PS
     Claim 27; Page 33; 46pp; English.
XX
     This sequence is an example of a biologically active peptide which
CC
CC
     corresponds to the generic sequence; R1-R2-R2-R1-R1-R2-R2-R1-R2-R2-R1
CC
     where R1 = a hydrophobic amino acid; and R2 = a basic hydrophilic or
     neutral hydrophilic amino acid. This basic structure was designated (e).
CC
     Peptides such as this are ionophores ie. they have channel-forming
CC
     properties. The peptides can be administered to a host, eg, humans, to
CC
CC
     inhibit the growth of a target cell, virus or virally infected cell. They
     can be used as antimicrobial, antiviral agents, antibacterial agents,
CC
     antitumour agents, antiparasitic agents, and as spermicides. They can be
CC
CC
     used as preservatives or sterilants or disinfectants. These peptides can
     also be used to promote or stimulate healing of wounds, to treat and/or
CC
CC
    prevent prevent skin or burn infections, to prevent or treat eye
     infections and to kill cysts, spores or trophozoites of infection causing
CC
     organisms. The peptides may also be administered to plants to prevent or
CC
     treat microbial, viral or parasitic contamination. (Updated on 25-MAR-
CC
     2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
 Query Match
                          36.4%; Score 4; DB 2; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.6e+03;
           4: Conservative
                               0; Mismatches
                                                                              0;
                                                   0; Indels
                                                                 0; Gaps
            6 KLKK 9
Qу
              1111
            7 KLKK 10
Db
RESULT 13
AAR31146
    AAR31146 standard; peptide; 11 AA.
XX
AC
    AAR31146;
XX
DT
     25-MAR-2003
                 (revised)
DT
     10-MAY-1993
                 (first entry)
XX
     C-terminal substd. amphiphilic peptide #95.
DΕ
XX
KW
     ion-channel forming; ionophore; antibiotic; anti-tumour; anti-virus;
KW
     wound healing.
XX
```

```
Synthetic.
OS
XX
FH
     Key
                     Location/Qualifiers
     Modified-site
FT
                     /note= "Leu-(C=O)-T, T= O-R, NH-NH2, NH-OH or NR'R''; R=
FT
                     opt.substd. 1-10C aliphatic, aromatic or aralkyl gp.; R',
FT
                     R''= H or from one of qps. i and ii; qp.i= 1-10C hydroxy-
FT
                     substd. aliphatic, aromatic or aralkyl gp.; gp.ii= amino-
FT
                     substd. aliphatic, aromatic, aralkyl or alkylaromatic gp.
FT
                     and at least one of R' and R'' = gp.i or gp.ii''"
FT
XX
PN
     WO9222317-A1.
XX
PD
     23-DEC-1992.
XX
     01-JUN-1992;
PF
                    92WO-US004603.
XX
     12-JUN-1991;
                    91US-00713716.
PR
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Maloy WL, Kari UP;
XX
DR
     WPI; 1993-017904/02.
XX
     New C-terminal-substd. amphiphilic peptide(s) - for treating bacterial,
PT
     viral or fungal infections and tumours, also useful as spermicide.
PT
XX
     Claim 15; Page 107; 124pp; English.
PS
XX
     This peptide is a preferred example of a highly generic amphiphilic
CC
     peptide with a C-terminal modification which increases the peptide's
CC
     biological activity c.f. the unmodified peptide. The preferred C-terminal
CC
     modification is -(CO)-NHCH2CH2OH or -(CO)-NHCH2CH2NH2. Such substd.
CC
CC
     peptides may be used for inhibiting the growth of a target cell, virus or
     virally-infected cell in a host. The peptides have a broad range of
CC
     potent antibiotic activity, e.g. against gram- negative and gram-positive
CC
     bacteria, fungi, protozoa and parasites. The peptides can also be used to
CC
     promote wound healing and treatment of burns. Other preferred amphiphilic
CC
     peptides include magainins and their analogues, PGLa, XPF, CPF, a
CC
     cecropin and a sarcotoxin. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                               0;
            6 KLKK 9
Qу
              +1111
            3 KLKK 6
Db
RESULT 14
AAR31163
     AAR31163 standard; peptide; 11 AA.
ID
XX
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AC
     AAR31163;
XX
DT
     25-MAR-2003 (revised)
DT
     10-MAY-1993 (first entry)
XX
     C-terminal substd. amphiphilic peptide #112.
DE
XX
     ion-channel forming; ionophore; antibiotic; anti-tumour; anti-virus;
KW
     wound healing.
KW
XX
     Synthetic.
OS
XX
FΉ
                     Location/Qualifiers
     Kev
FT
     Modified-site
                     /note= "Leu-(C=O)-T, T= O-R, NH-NH2, NH-OH or NR'R''; R=
FT
                     opt.substd. 1-10C aliphatic, aromatic or aralkyl gp.; R',
FT
FT
                     R''= H or from one of gps. i and ii; gp.i= 1-10C hydroxy-
                     substd. aliphatic, aromatic or aralkyl gp.; gp.ii= amino-
FT
                     substd. aliphatic, aromatic, aralkyl or alkylaromatic gp.
FT
                     and at least one of R' and R'' = gp.i or gp.ii''"
FT
XX
PN
     WO9222317-A1.
XX
     23-DEC-1992.
PD
XX
                    92WO-US004603.
PF
     01-JUN-1992;
XX
                    91US-00713716.
PR
     12-JUN-1991;
XX
     (MAGA-) MAGAININ PHARM INC.
PA
XX
PΙ
     Maloy WL,
                Kari UP;
XX
DR
     WPI; 1993-017904/02.
XX
PT
     New C-terminal-substd. amphiphilic peptide(s) - for treating bacterial,
     viral or fungal infections and tumours, also useful as spermicide.
PT
XX
     Claim 21; Page 114; 124pp; English.
PS
XX
     This peptide is a preferred example of a highly generic amphiphilic
CC
     peptide with a C-terminal modification which increases the peptide's
CC
     biological activity c.f. the unmodified peptide. The preferred C-terminal
CC
     modification is -(CO)-NHCH2CH2OH or -(CO)-NHCH2CH2NH2. Such substd.
CC
     peptides may be used for inhibiting the growth of a target cell, virus or
CC
     virally-infected cell in a host. The peptides have a broad range of
CC
     potent antibiotic activity, e.g. against gram- negative and gram-positive
CC
CC
     bacteria, fungi, protozoa and parasites. The peptides can also be used to
     promote wound healing and treatment of burns. Other preferred amphiphilic
CC
CC
     peptides include magainins and their analogues, PGLa, XPF, CPF, a
CC
     cecropin and a sarcotoxin. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
             4; Conservative 0; Mismatches
                                                                              0;
  Matches
                                                   0; Indels
                                                                      Gaps
```

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6 KLKK 9
Qу
              1111
            7 KLKK 10
Db
RESULT 15
AAR31162
     AAR31162 standard; peptide; 11 AA.
XX
AC
     AAR31162;
XX
     25-MAR-2003
                   (revised)
DT
DT
     10-MAY-1993
                   (first entry)
XX
     C-terminal substd. amphiphilic peptide #111.
DE
XX
KW
     ion-channel forming; ionophore; antibiotic; anti-tumour; anti-virus;
KW
     wound healing.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
     Modified-site
FT
FT
                     /note= "Leu-(C=O)-T, T= O-R, NH-NH2, NH-OH or NR'R''; R=
                     opt.substd. 1-10C aliphatic, aromatic or aralkyl gp.; R',
FT
                     R''= H or from one of gps. i and ii; gp.i= 1-10C hydroxy-
FT
                     substd. aliphatic, aromatic or aralkyl gp.; gp.ii= amino-
FT
FT
                     substd. aliphatic, aromatic, aralkyl or alkylaromatic gp.
                     and at least one of R' and R'' = gp.i or gp.ii''"
FT
XX
PN
     WO9222317-A1.
XX
PD
     23-DEC-1992.
XX
PF
     01-JUN-1992;
                    92WO-US004603.
XX
PR
     12-JUN-1991;
                    91US-00713716.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Maloy WL, Kari UP;
XX
DR
     WPI; 1993-017904/02.
XX
PT
     New C-terminal-substd. amphiphilic peptide(s) - for treating bacterial,
     viral or fungal infections and tumours, also useful as spermicide.
PT
XX
     Claim 21; Page 114; 124pp; English.
PS
XX
CC
     This peptide is a preferred example of a highly generic amphiphilic
CC
     peptide with a C-terminal modification which increases the peptide's
CC
     biological activity c.f. the unmodified peptide. The preferred C-terminal
CC
     modification is -(CO)-NHCH2CH2OH or -(CO)-NHCH2CH2NH2. Such substd.
CC
     peptides may be used for inhibiting the growth of a target cell, virus or
CC
     virally-infected cell in a host. The peptides have a broad range of
CC
     potent antibiotic activity, e.g. against gram- negative and gram-positive
```

```
CC
     bacteria, fungi, protozoa and parasites. The peptides can also be used to
CC
     promote wound healing and treatment of burns. Other preferred amphiphilic
     peptides include magainins and their analogues, PGLa, XPF, CPF, a
CC
     cecropin and a sarcotoxin. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative 0; Mismatches
                                                   0; Indels
                                                                              0;
                                                                  0; Gaps
            6 KLKK 9
Qу
              \perp
Db
            7 KLKK 10
RESULT 16
AAR45132
ID
     AAR45132 standard; peptide; 11 AA.
XX
AC
     AAR45132;
XX
DT
     25-MAR-2003 (revised)
     28-JUN-1994 (first entry)
DT
XX
     Amphiphilic peptide for N-terminal lipophilic substitution.
DE
XX
KW
     Ion channel; magainin; PGLa; XPF; CPF; cecropin; sarcotoxin; amphiphilic;
     hydrophobic; hydrophilic; lipophilic; growth; inhibition; target cell;
KW
     virus; virally-infected cell; antimicrobial; antiviral; antitumour;
KW
KW
     antiparasitic; spermicide; wound healing; burn; infection.
XX
OS
     Synthetic.
XX
PN
     WO9324138-A1.
XX
PD
     09-DEC-1993.
XX
PF
     27-MAY-1993;
                    93WO-US005192.
XX
     01-JUN-1992;
                    92US-00891201.
PR
XX
     (MAGA-) MAGAININ PHARM INC.
PA
XX
PI
     Kari U;
XX
     WPI; 1993-405419/50.
DR
XX
PT
     Peptide(s) or proteins with an N-terminal lipophilic substit. - used for
PT
     inhibiting growth of target cell, virus or virally-infected cell.
XX
PS
     Disclosure; Page 97-103; 113pp; English.
XX
CC
     A novel compsn. for inhibiting growth of a target cell, virus or virally-
CC
     infected cell comprises a peptide of formula T-N(W)-X (I). X is a
CC
     biologically active amphiphilic ion channel-forming peptide or protein;
     pref. a magainin peptide, a PGLa peptide, a XPF peptide, a CPF peptide, a
CC
```

```
cecropin or a sarcotoxin. N is the nitrogen of the N-terminal amino
CC
     group. T is a lipophilic moiety; pref. R-CO, where R is a 2-16C
CC
     hydrocarbon (alkyl or aromatic or alkylaromatic). T is pref. an octanoyl
CC
     group. W is T or hydrogen. Amphiphilic peptides as examples of X are
     given in AAR45115-138. The N-terminal substd. peptides and proteins have
CC
     increased biological activity as compared with unsubstd. peptides or
CC
     proteins or peptides substd. at the N-terminal with an acetyl qp. They
CC
     can be used as antimicrobial agents, antiviral agents, antitumour agents,
CC
     antiparasitic agents or spermicides and can also exhibit other bioactive
CC
CC
     functions. They can also be used in promoting or stimulating wound
     healing, for the treatment of external burns and to treat and/or prevent
CC
     skin and burn infections or eye infections. (Updated on 25-MAR-2003 to
CC
CC
     correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative
                              0; Mismatches
                                                                  0; Gaps
                                                                              0;
                                                   0; Indels
            6 KLKK 9
Qу
              1111
            7 KLKK 10
Db
RESULT 17
AAR45115
     AAR45115 standard; peptide; 11 AA.
XX
AC
     AAR45115;
XX
DT
     25-MAR-2003
                 (revised)
DT
     28-JUN-1994
                  (first entry)
XX
DE
     Amphiphilic peptide for N-terminal lipophilic substitution.
XX
KW
     Ion channel; magainin; PGLa; XPF; CPF; cecropin; sarcotoxin; amphiphilic;
KW
     hydrophobic; hydrophilic; lipophilic; growth; inhibition; target cell;
     virus; virally-infected cell; antimicrobial; antiviral; antitumour;
KW
KW
     antiparasitic; spermicide; wound healing; burn; infection.
XX
OS
     Synthetic.
XX
PN
     WO9324138-A1.
XX
PD
     09-DEC-1993.
XX
PF
     27-MAY-1993;
                    93WO-US005192.
XX
PR
     01-JUN-1992;
                    92US-00891201.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Kari U;
XX
DR
     WPI; 1993-405419/50.
XX
```

```
PT
     Peptide(s) or proteins with an N-terminal lipophilic substit. - used for
PT
     inhibiting growth of target cell, virus or virally-infected cell.
XX
     Disclosure; Page 97-103; 113pp; English.
PS
XX
     A novel compsn. for inhibiting growth of a target cell, virus or virally-
CC
     infected cell comprises a peptide of formula T-N(W)-X (I). X is a
CC
     biologically active amphiphilic ion channel-forming peptide or protein;
CC
CC
     pref. a magainin peptide, a PGLa peptide, a XPF peptide, a CPF peptide, a
CC
     cecropin or a sarcotoxin. N is the nitrogen of the N-terminal amino
     group. T is a lipophilic moiety; pref. R-CO, where R is a 2-16C
CC
     hydrocarbon (alkyl or aromatic or alkylaromatic). T is pref. an octanoyl
CC
CC
     group. W is T or hydrogen. Amphiphilic peptides as examples of X are
CC
     given in AAR45115-138. The N-terminal substd. peptides and proteins have
     increased biological activity as compared with unsubstd. peptides or
CC
     proteins or peptides substd. at the N-terminal with an acetyl qp. They
CC
CC
     can be used as antimicrobial agents, antiviral agents, antitumour agents,
CC
     antiparasitic agents or spermicides and can also exhibit other bioactive
CC
     functions. They can also be used in promoting or stimulating wound
     healing, for the treatment of external burns and to treat and/or prevent
CC
CC
     skin and burn infections or eye infections. (Updated on 25-MAR-2003 to
CC
     correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
            4; Conservative 0; Mismatches
                                                                  0; Gaps
                                                  0; Indels
                                                                              0;
  Matches
            6 KLKK 9
Qу
              +1111
            3 KLKK 6
Db
RESULT 18
AAR45133
     AAR45133 standard; peptide; 11 AA.
XX
AC
     AAR45133;
XX
DT
     25-MAR-2003 (revised)
DT
     28-JUN-1994 (first entry)
XX
     Amphiphilic peptide for N-terminal lipophilic substitution.
DE
XX
KW
     Ion channel; magainin; PGLa; XPF; CPF; cecropin; sarcotoxin; amphiphilic;
     hydrophobic; hydrophilic; lipophilic; growth; inhibition; target cell;
KW
KW
     virus; virally-infected cell; antimicrobial; antiviral; antitumour;
KW
     antiparasitic; spermicide; wound healing; burn; infection.
XX
OS
     Synthetic.
XX
PN
     WO9324138-A1.
XX
PD
     09-DEC-1993.
XX
                    93WO-US005192.
PF
     27-MAY-1993;
```

```
XX
PR
     01-JUN-1992;
                    92US-00891201.
XX
     (MAGA-) MAGAININ PHARM INC.
PA
XX
PΙ
     Kari U;
XX
     WPI; 1993-405419/50.
DR
XX
PT
     Peptide(s) or proteins with an N-terminal lipophilic substit. - used for
     inhibiting growth of target cell, virus or virally-infected cell.
PT
XX
PS
     Disclosure; Page 97-103; 113pp; English.
XX
CC
     A novel compsn. for inhibiting growth of a target cell, virus or virally-
CC
     infected cell comprises a peptide of formula T-N(W)-X (I). X is a
CC
     biologically active amphiphilic ion channel-forming peptide or protein;
CC
     pref. a magainin peptide, a PGLa peptide, a XPF peptide, a CPF peptide, a
     cecropin or a sarcotoxin. N is the nitrogen of the N-terminal amino
CC
     group. T is a lipophilic moiety; pref. R-CO, where R is a 2-16C
CC
CC
     hydrocarbon (alkyl or aromatic or alkylaromatic). T is pref. an octanoyl
CC
     group. W is T or hydrogen. Amphiphilic peptides as examples of X are
CC
     given in AAR45115-138. The N-terminal substd. peptides and proteins have
CC
     increased biological activity as compared with unsubstd. peptides or
CC
     proteins or peptides substd. at the N-terminal with an acetyl gp. They
CC
     can be used as antimicrobial agents, antiviral agents, antitumour agents,
CC
     antiparasitic agents or spermicides and can also exhibit other bioactive
CC
     functions. They can also be used in promoting or stimulating wound
CC
     healing, for the treatment of external burns and to treat and/or prevent
CC
     skin and burn infections or eye infections. (Updated on 25-MAR-2003 to
CC
     correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.6e+03;
                                0; Mismatches
            4: Conservative
                                                    0;
                                                       Indels
                                                                   0; Gaps
                                                                               0;
            6 KLKK 9
Qу
              \perp \mid \cdot \mid \cdot \mid \cdot \mid
Db
            3 KLKK 6
RESULT 19
AAR45131
ID
     AAR45131 standard; peptide; 11 AA.
XX
AC
    AAR45131;
XX
DT
     25-MAR-2003
                 (revised)
DT
     28-JUN-1994
                  (first entry)
XX
DE
     Amphiphilic peptide for N-terminal lipophilic substitution.
XX
KW
     Ion channel; magainin; PGLa; XPF; CPF; cecropin; sarcotoxin; amphiphilic;
ΚW
     hydrophobic; hydrophilic; lipophilic; growth; inhibition; target cell;
KW
     virus; virally-infected cell; antimicrobial; antiviral; antitumour;
```

```
antiparasitic; spermicide; wound healing; burn; infection.
KW
XX
OS
     Synthetic.
XX
     W09324138-A1.
PN
XX
     09-DEC-1993.
PD
XX
     27-MAY-1993;
                    93WO-US005192.
PF
XX
     01-JUN-1992;
                    92US-00891201.
PR
XX
     (MAGA-) MAGAININ PHARM INC.
PA
XX
PΙ
     Kari U;
XX
DR
     WPI; 1993-405419/50.
XX
PT
     Peptide(s) or proteins with an N-terminal lipophilic substit. - used for
     inhibiting growth of target cell, virus or virally-infected cell.
PT
XX
PS
     Disclosure; Page 97-103; 113pp; English.
XX
CC
     A novel compsn. for inhibiting growth of a target cell, virus or virally-
CC
     infected cell comprises a peptide of formula T-N(W)-X (I). X is a
     biologically active amphiphilic ion channel-forming peptide or protein;
CC
CC
     pref. a magainin peptide, a PGLa peptide, a XPF peptide, a CPF peptide, a
     cecropin or a sarcotoxin. N is the nitrogen of the N-terminal amino
CC
     group. T is a lipophilic moiety; pref. R-CO, where R is a 2-16C
CC
CC
     hydrocarbon (alkyl or aromatic or alkylaromatic). T is pref. an octanoyl
     group. W is T or hydrogen. Amphiphilic peptides as examples of X are
CC
     given in AAR45115-138. The N-terminal substd. peptides and proteins have
CC
СC
     increased biological activity as compared with unsubstd. peptides or
CC
     proteins or peptides substd. at the N-terminal with an acetyl qp. They
     can be used as antimicrobial agents, antiviral agents, antitumour agents,
CC
CC
     antiparasitic agents or spermicides and can also exhibit other bioactive
     functions. They can also be used in promoting or stimulating wound
CC
CC
     healing, for the treatment of external burns and to treat and/or prevent
CC
     skin and burn infections or eye infections. (Updated on 25-MAR-2003 to
     correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            6 KLKK 9
Qу
              1111
Db
            7 KLKK 10
RESULT 20
AAR50562
ID
     AAR50562 standard; peptide; 11 AA.
XX
AC
     AAR50562;
```

```
XX
DT
     25-MAR-2003
                  (revised)
DT
     18-OCT-1994
                 (first entry)
XX
DE
     Amphiphillic peptide #111.
XX
     Amphiphilic; ion forming; gynaecological malignancy; magainin; PGLa; XPF;
KW
     CPF; cecropin; sarcotoxin; melittin; apidaecin; defensin;
KW
     major basic protein; eosinophils; uterine; cervical; cancer;
KW
KW
     bacterial permeability increasing protein; ovarian; stage IC.
XX
OS
     Synthetic.
XX
ΡN
     WO9405313-A1.
XX
PD
     17-MAR-1994.
XX
PF
     16-AUG-1993;
                    93WO-US007798.
XX
PR
     31-AUG-1992;
                    92US-00937462.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Jacob LS, Maloy WL,
                           Baker MA;
XX
     WPI; 1994-100851/12.
DR
XX
PT
     Treating gynaecological tumours with amphiphilic peptide(s) - which form
PT
     ion channels, e.g. magainin or PGLa peptide(s), partic. for treating
     ovarian, uterine or cervical cancers.
PT
XX
PS
     Disclosure; Page 115; 130pp; English.
XX
CC
     The sequences given in AAR50452-568 represent amphiphilic, ion forming
CC
     peptides which may be used to treat gynaecological malignancy. These
     peptides are based on magainin, PGLa, XPF or CPF, a cecropin, a
CC
     sarcotoxin, melittin, an apidaecin, a defensin, major basic protein of
CC
CC
     eosinophils or a bacterial permeability increasing protein. These
     peptides are esp. used to treat ovarian, esp. stage IC, uterine or
CC
     cervical cancers. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0:
            6 KLKK 9
Qу
              ++++
Db
            7 KLKK 10
RESULT 21
AAR50546
ID
     AAR50546 standard; peptide; 11 AA.
XX
AC
     AAR50546;
```

```
XX
ÐΤ
     25-MAR-2003
                  (revised)
DT
     18-OCT-1994
                  (first entry)
XX
     Amphiphillic peptide #95.
DE
XX
     Amphiphilic; ion forming; gynaecological malignancy; magainin; PGLa; XPF;
KW
     CPF; cecropin; sarcotoxin; melittin; apidaecin; defensin;
KW
     major basic protein; eosinophils; uterine; cervical; cancer;
KW
     bacterial permeability increasing protein; ovarian; stage IC.
KW
XX
OS
     Synthetic.
XX
     WO9405313-A1.
PN
XX
PD
     17-MAR-1994.
XX
PF
     16-AUG-1993;
                    93WO-US007798.
XX
PR
     31-AUG-1992;
                    92US-00937462.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Jacob LS, Maloy WL,
                           Baker MA;
XX
     WPI; 1994-100851/12.
DR
XX
PT
     Treating gynaecological tumours with amphiphilic peptide(s) - which form
PT
     ion channels, e.g. magainin or PGLa peptide(s), partic. for treating
     ovarian, uterine or cervical cancers.
PT
XX
     Disclosure; Page 109; 130pp; English.
PS
XX
     The sequences given in AAR50452-568 represent amphiphilic, ion forming
CC
CC
     peptides which may be used to treat gynaecological malignancy. These
     peptides are based on magainin, PGLa, XPF or CPF, a cecropin, a
CC
     sarcotoxin, melittin, an apidaecin, a defensin, major basic protein of
CC
CC
     eosinophils or a bacterial permeability increasing protein. These
     peptides are esp. used to treat ovarian, esp. stage IC, uterine or
CC
     cervical cancers. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
     Sequence 11 AA;
SO
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
             4; Conservative
                               0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            6 KLKK 9
Qу
              \square
            3 KLKK 6
RESULT 22
AAR50563
     AAR50563 standard; peptide; 11 AA.
ID
XX
AC
     AAR50563;
```

```
XX
     25-MAR-2003
                 (revised)
DT
DT
     18-OCT-1994
                 (first entry)
XX
DE
     Amphiphillic peptide #112.
XX
     Amphiphilic; ion forming; gynaecological malignancy; magainin; PGLa; XPF;
KW
     CPF; cecropin; sarcotoxin; melittin; apidaecin; defensin;
KW
     major basic protein; eosinophils; uterine; cervical; cancer;
ΚW
     bacterial permeability increasing protein; ovarian; stage IC.
KW
XX
OS
     Synthetic.
XX
PN
     WO9405313-A1.
XX
PD
     17-MAR-1994.
XX
PF
     16-AUG-1993;
                    93WO-US007798.
XX
PR
     31-AUG-1992;
                    92US-00937462.
XX
     (MAGA-) MAGAININ PHARM INC.
PΑ
XX
PI
     Jacob LS, Maloy WL,
                           Baker MA;
XX
DR
     WPI; 1994-100851/12.
XX
PT
     Treating gynaecological tumours with amphiphilic peptide(s) - which form
PT
     ion channels, e.g. magainin or PGLa peptide(s), partic. for treating
     ovarian, uterine or cervical cancers.
PT
XX
PS
     Disclosure; Page 116; 130pp; English.
XX
     The sequences given in AAR50452-568 represent amphiphilic, ion forming
CC
     peptides which may be used to treat gynaecological malignancy. These
CC
     peptides are based on magainin, PGLa, XPF or CPF, a cecropin, a
CC
     sarcotoxin, melittin, an apidaecin, a defensin, major basic protein of
CC
CC
     eosinophils or a bacterial permeability increasing protein. These
     peptides are esp. used to treat ovarian, esp. stage IC, uterine or
CC
CC
     cervical cancers. (Updated on 25-MAR-2003 to correct PN field.)
XX
     Sequence 11 AA;
SO
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
                                0; Mismatches
             4; Conservative
                                                   0;
                                                       Indels
                                                                  0;
                                                                      Gaps
            6 KLKK 9
Qу
              7 KLKK 10
RESULT 23
AAR55986
ID
     AAR55986 standard; peptide; 11 AA.
XX
AC
     AAR55986;
```

```
XX
     25-MAR-2003
                  (revised)
DT
DT
     19-DEC-1994
                  (first entry)
XX
DE
     Ion channel forming peptide.
XX
     Ion channel forming peptide; tumour; skin disease; mallignancy; melanoma;
KW
     carcinoma; basal cell; squamous cell; magainin; PGLa; CPF peptides;
KW
     cercopins; sarcotoxin; mellitin; apidocin; defensins;
ΚW
     major basic protein; bacteria-permeability increasing protein; perforin.
KW
XX
OS
     Synthetic.
XX
     W09412206-A1.
PN
XX
PD
     09-JUN-1994.
XX
PF
     03-DEC-1993;
                    93WO-US011885.
XX
PR
     03-DEC-1992;
                    92US-00984957.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Jacob LS, Maloy WL;
XX
DR
     WPI; 1994-199965/24.
XX
PT
     Treating skin cancer with ion channel forming peptide(s) - e.g.
PT
     magainins, mellitin etc., specifically for treating melanoma.
XX
     Disclosure; Page 120; 136pp; English.
PS
XX
CC
     The peptide is used to treat dermatological malignancies. It may be used
     to treat especially melanoma but also basal cell and squamous cell
CC
CC
     carcinomas. It can be used together with an ion which also
     inhibits/prevents growth of the target cell. Peptides used for such
CC
CC
     therapy include magainin, PGLa or CPF peptides; cercopins, sarcotoxins,
CC
     mellitin, apidocins, defensins, major basic protein of eosimophils;
CC
     bacteria-permeability increasing protein and perforin. See also AAQ55876-
     Q55997. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SO
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
             4; Conservative
                                0; Mismatches
                                                    0;
                                                        Indels
                                                                  0;
                                                                      Gaps
                                                                               0;
            6 KLKK 9
Qу
              1111
            7 KLKK 10
RESULT 24
AAR55970
ID
     AAR55970 standard; peptide; 11 AA.
XX
AC
     AAR55970;
```

```
XX
     25-MAR-2003
DT
                  (revised)
     19-DEC-1994
DT
                  (first entry)
XX
     Ion channel forming peptide.
DΕ
XX
     Ion channel forming peptide; tumour; skin disease; mallignancy; melanoma;
KW
     carcinoma; basal cell; squamous cell; magainin; PGLa; CPF peptides;
KW
     cercopins; sarcotoxin; mellitin; apidocin; defensins;
KW
     major basic protein; bacteria-permeability increasing protein; perforin.
KW
XX
OS
     Synthetic.
XX
PN
     WO9412206-A1.
XX
PD
     09-JUN-1994.
XX
                    93WO-US011885.
PF
     03-DEC-1993;
XX
PR
     03-DEC-1992;
                    92US-00984957.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Jacob LS, Maloy WL;
XX
DR
     WPI; 1994-199965/24.
XX
     Treating skin cancer with ion channel forming peptide(s) - e.g.
PT
     magainins, mellitin etc., specifically for treating melanoma.
PT
XX
PS
     Disclosure; Page 114; 136pp; English.
XX
CC
     The peptide is used to treat dermatological malignancies. It may be used
CC
     to treat especially melanoma but also basal cell and squamous cell
     carcinomas. It can be used together with an ion which also
CC
     inhibits/prevents growth of the target cell. Peptides used for such
CC
     therapy include magainin, PGLa or CPF peptides; cercopins, sarcotoxins,
CC
CC
     mellitin, apidocins, defensins, major basic protein of eosimophils;
CC
     bacteria-permeability increasing protein and perforin. See also AAQ55876-
CC
     Q55997. (Updated on 25-MAR-2003 to correct PN field.)
XX
SO
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
             4; Conservative
                                0; Mismatches
                                                    0;
                                                        Indels
                                                                  0;
                                                                       Gaps
                                                                               0;
            6 KLKK 9
Qу
              IIIII
Db
            3 KLKK 6
RESULT 25
AAR55987
ID
     AAR55987 standard; peptide; 11 AA.
XX
AC
     AAR55987;
```

```
XX
     25-MAR-2003
                  (revised)
DT
     19-DEC-1994
                  (first entry)
DT
XX
     Ion channel forming peptide.
DE
XX
     Ion channel forming peptide; tumour; skin disease; mallignancy; melanoma;
KW
     carcinoma; basal cell; squamous cell; magainin; PGLa; CPF peptides;
ΚW
     cercopins; sarcotoxin; mellitin; apidocin; defensins;
KW
     major basic protein; bacteria-permeability increasing protein; perforin.
KW
XX
OS
     Synthetic.
XX
PN
     WO9412206-A1.
XX
PD
     09-JUN-1994.
XX
PF
     03-DEC-1993;
                    93WO-US011885.
XX
PR
     03-DEC-1992;
                    92US-00984957.
XX
     (MAGA-) MAGAININ PHARM INC.
PΑ
XX
PI
     Jacob LS, Maloy WL;
XX
     WPI; 1994-199965/24.
DR
XX
     Treating skin cancer with ion channel forming peptide(s) - e.g.
PT
PT
     magainins, mellitin etc., specifically for treating melanoma.
XX
PS
     Disclosure; Page 121; 136pp; English.
XX
CC
     The peptide is used to treat dermatological malignancies. It may be used
     to treat especially melanoma but also basal cell and squamous cell
CC
CC
     carcinomas. It can be used together with an ion which also
     inhibits/prevents growth of the target cell. Peptides used for such
CC
     therapy include magainin, PGLa or CPF peptides; cercopins, sarcotoxins,
CC
     mellitin, apidocins, defensins, major basic protein of eosimophils;
CC
     bacteria-permeability increasing protein and perforin. See also AAQ55876-
CC
CC
     Q55997. (Updated on 25-MAR-2003 to correct PN field.)
XX
SO
     Sequence 11 AA;
                           36.4%; Score 4; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
             4; Conservative
                               0; Mismatches
                                                        Indels
                                                                  0; Gaps
            6 KLKK 9
Qу
              \Pi\Pi\Pi
            7 KLKK 10
RESULT 26
AAR59065
     AAR59065 standard; peptide; 11 AA.
ΙD
XX
AC
     AAR59065;
```

```
XX
DT
     25-MAR-2003
                 (revised)
DT
     21-APR-1995 (first entry)
XX
DE
     Cancer treating, amphiphilic ion-channel forming peptide.
XX
KW
     Amphiphilic ion-channel forming peptide; cancer treatment;
     protease inhibitors.
KW
XX
OS
     Synthetic.
XX
PΝ
     WO9419369-A1.
XX
PD
     01-SEP-1994.
XX
PF
     22-FEB-1994;
                    94WO-US002121.
XX
PR
     26-FEB-1993;
                    93US-00021607.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Herlyn M, Jacob LS, Maloy WL;
XX
     WPI; 1994-294258/36.
DR
XX
     Treating cancerous growths - by administering biologically active
PT
PT
     peptide(s) and protease inhibitors.
XX
PS
     Claim 2; Page 106; 124pp; English.
XX
CC
     AAR59060 to AAR59066 are a group of amphiphilic ion-channel forming
CC
     peptides conforming to the same generic sequence. Used in combination
CC
     with one or more protease inhibitors and other amphiphilic ion-channel
CC
     forming peptides or proteins; they are effective in the treatment of
CC
     cancerous growths. In particular during surgery and radiation treatment
CC
     they may be useful in ihibiting, preventing and/or destroying potential
CC
     "loose" malignant cells capable of colonising other sites. (Updated on 25
     -MAR-2003 to correct PN field.)
CC
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
            4; Conservative 0; Mismatches
                                                   0; Indels
 Matches
                                                                  0; Gaps
                                                                              0;
Qу
            6 KLKK 9
              +111
Dh
            7 KLKK 10
RESULT 27
AAR59048
ID
    AAR59048 standard; peptide; 11 AA.
XX
AC
    AAR59048;
XX
DT
     25-MAR-2003 (revised)
```

```
21-APR-1995 (first entry)
DT
XX
DE
     Cancer treating, amphiphilic ion-channel forming peptide.
XX
KW
     Amphiphilic ion-channel forming peptide; cancer treatment;
     protease inhibitors.
KW
XX
OS
     Synthetic.
XX
    WO9419369-A1.
PN
XX
PD
     01-SEP-1994.
XX
PF
                   94WO-US002121.
     22-FEB-1994;
XX
                   93US-00021607.
     26-FEB-1993;
PR
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Herlyn M, Jacob LS, Maloy WL;
XX
DR
     WPI; 1994-294258/36.
XX
     Treating cancerous growths - by administering biologically active
PT
     peptide(s) and protease inhibitors.
PT
XX
PS
     Claim 2; Page 99; 124pp; English.
XX
CC
     AAR59048 to AAR59051 are a group of amphiphilic ion-channel forming
     peptides conforming to the same generic sequence. Used in combination
CC
     with one or more protease inhibitors and other amphiphilic ion-channel
CC
     forming peptides or proteins; they are effective in the treatment of
CC
     cancerous growths. In particular during surgery and radiation treatment
CC
CC
     they may be useful in ihibiting, preventing and/or destroying potential
     "loose" malignant cells capable of colonising other sites. (Updated on 25
CC
     -MAR-2003 to correct PN field.)
CC
XX
     Sequence 11 AA;
SO
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
 Matches
            4; Conservative 0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                              0:
            6 KLKK 9
Qу
              \Box
Db
            3 KLKK 6
RESULT 28
AAR59064
    AAR59064 standard; peptide; 11 AA.
ID
XX
AC
     AAR59064;
XX
DT
     25-MAR-2003 (revised)
     21-APR-1995 (first entry)
DT
XX
```

```
DΕ
     Cancer treating, amphiphilic ion-channel forming peptide.
XX
     Amphiphilic ion-channel forming peptide; cancer treatment;
KW
     protease inhibitors.
KW
XX
OS
     Synthetic.
XX
PN
     WO9419369-A1.
XX
PD
     01-SEP-1994.
XX
PF
     22-FEB-1994:
                    94WO-US002121.
XX
PR
     26-FEB-1993;
                    93US-00021607.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Herlyn M, Jacob LS, Maloy WL;
XX
DR
     WPI; 1994-294258/36.
XX
     Treating cancerous growths - by administering biologically active
PT
     peptide(s) and protease inhibitors.
PT
XX
     Claim 2; Page 106; 124pp; English.
PS
XX
CC
     AAR59060 to AAR59066 are a group of amphiphilic ion-channel forming
     peptides conforming to the same generic sequence. Used in combination
CC
     with one or more protease inhibitors and other amphiphilic ion-channel
CC
     forming peptides or proteins; they are effective in the treatment of
CC
     cancerous growths. In particular during surgery and radiation treatment
CC
     they may be useful in ihibiting, preventing and/or destroying potential
CC
CC
     "loose" malignant cells capable of colonising other sites. (Updated on 25
CC
     -MAR-2003 to correct PN field.)
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
             4; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            6 KLKK 9
Qу
              \Box
            7 KLKK 10
Db
RESULT 29
AAR56948
     AAR56948 standard; peptide; 11 AA.
ID
XX
AC
     AAR56948;
XX
DT
     25-MAR-2003
                  (revised)
DT
     17-MAR-1995
                 (first entry)
XX
DE
     Peptide which neutralises bacterial endotoxin.
XX
```

```
KW
     septic shock; bacterial endotoxin; lipopolysaccharide; LPS;
KW
     gram negative bacteria; conjugate moiety; septicemia; neutralising;
     longer activity; polyvinylpyrrolidone; dextran; hetastarch;
KW
KW
     polyvinyl alcohol; ion-channel forming; amphiphilic.
XX
OS
     Synthetic.
XX
PN
     WO9413697-A1.
XX
PD
     23-JUN-1994.
XX
PF
     06-DEC-1993:
                    93WO-US011841.
XX
PR
     07-DEC-1992;
                    92US-00987443.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Hendi M, Rao M, Williams TJ;
XX
     WPI; 1994-217804/26.
DR
XX
PT
     New conjugates of bioactive amphiphilic peptide(s) and conjugate moiety -
PT
     are useful for treatment of septic shock.
XX
PS
     Disclosure; Page 115; 141pp; English.
XX
     Septic shock is often due to the body's reaction to foreign
CC
     lipopolysaccharide (LPS). The compounds of the invention neutralise
CC
CC
     bacterial endotoxins without neutralising essential proteins in the
CC
     plasma of patients, eq.heparins. They also have longer duration of
CC
     activity than unconjugated peptides. In general peptides such as this are
CC
     ion-channel forming peptides. The compounds are biologically active
CC
     peptides linked to a conjugate moiety, eg. carbohydrates, proteins,
CC
     polyvinylpyrrolidone, polyalkylene glycols and polyvinyl alcohols. The
CC
     conjugate moiety may be linked at the C- or N-terminal or internally of
     the peptide. AAR55591-631 and AAR56879-957 are examples of these peptide-
CC
CC
     conjugate moiety compounds (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
                                                                  0; Gaps
  Matches
            4; Conservative
                                0; Mismatches
                                                    0;
                                                       Indels
                                                                              0;
            6 KLKK 9
Qу
              1111
            7 KLKK 10
Dh
RESULT 30
AAR56931
ΙD
     AAR56931 standard; peptide; 11 AA.
XX
AC
     AAR56931;
XX
DT
     25-MAR-2003
                  (revised)
DT
     16-MAR-1995
                 (first entry)
```

```
XX
DE
     Peptide which neutralises bacterial endotoxin.
XX
KW
     septic shock; bacterial endotoxin; lipopolysaccharide; LPS;
KW
     gram negative bacteria; conjugate moiety; septicemia; neutralising;
KW
     longer activity; polyvinylpyrrolidone; dextran; hetastarch;
     polyvinyl alcohol; ion-channel forming; amphiphilic.
KW
XX
OS
     Synthetic.
XX
PN
     WO9413697-A1.
XX
     23-JUN-1994.
PD
XX
PF
     06-DEC-1993;
                    93WO-US011841.
XX
PR
     07-DEC-1992;
                    92US-00987443.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Hendi M, Rao M,
                      Williams TJ;
XX
     WPI; 1994-217804/26.
DR
XX
PT
     New conjugates of bioactive amphiphilic peptide(s) and conjugate moiety -
PT
     are useful for treatment of septic shock.
XX
PS
     Disclosure; Page 108; 141pp; English.
XX
CC
     Septic shock is often due to the body's reaction to foreign
CC
     lipopolysaccharide (LPS). The compounds of the invention neutralise
CC
     bacterial endotoxins without neutralising essential proteins in the
CC
     plasma of patients, eq.heparins. They also have longer duration of
CC
     activity than unconjugated peptides. In general peptides such as this are
CC
     ion-channel forming peptides. The compounds are biologically active
CC
     peptides linked to a conjugate moiety, eg. carbohydrates, proteins,
CC
     polyvinylpyrrolidone, polyalkylene glycols and polyvinyl alcohols. The
CC
     conjugate moiety may be linked at the C- or N-terminal or internally of
CC
     the peptide. AAR55591-631 and AAR56879-957 are examples of these peptide-
CC
     conjugate moiety compounds (Updated on 25-MAR-2003 to correct PN field.)
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
             4; Conservative
                                0; Mismatches
                                                    0;
                                                       Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            6 KLKK 9
Qy
              1111
            3 KLKK 6
RESULT 31
AAR56947
ΙD
     AAR56947 standard; peptide; 11 AA.
XX
AC
     AAR56947;
```

```
XX
DT
     25-MAR-2003
                  (revised)
DT
     17-MAR-1995
                  (first entry)
XX
DΕ
     Peptide which neutralises bacterial endotoxin.
XX
KW
     septic shock; bacterial endotoxin; lipopolysaccharide; LPS;
     gram negative bacteria; conjugate moiety; septicemia; neutralising;
KW
     longer activity; polyvinylpyrrolidone; dextran; hetastarch;
KW
     polyvinyl alcohol; ion-channel forming; amphiphilic.
KW
XX
OS
     Synthetic.
XX
PN
     WO9413697-A1.
XX
PD
     23-JUN-1994.
XX
     06-DEC-1993;
PF
                    93WO-US011841.
XX
PR
     07-DEC-1992;
                    92US-00987443.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Hendi M,
               Rao M,
                       Williams TJ;
XX
     WPI; 1994-217804/26.
DR
XX
PT
     New conjugates of bioactive amphiphilic peptide(s) and conjugate moiety -
PT
     are useful for treatment of septic shock.
XX
PS
     Disclosure; Page 115; 141pp; English.
XX
CC
     Septic shock is often due to the body's reaction to foreign
CC
     lipopolysaccharide (LPS). The compounds of the invention neutralise
CC
     bacterial endotoxins without neutralising essential proteins in the
CC
     plasma of patients, eg.heparins. They also have longer duration of
CC
     activity than unconjugated peptides. In general peptides such as this are
CC
     ion-channel forming peptides. The compounds are biologically active
CC
     peptides linked to a conjugate moiety, eg. carbohydrates, proteins,
CC
     polyvinylpyrrolidone, polyalkylene glycols and polyvinyl alcohols. The
CC
     conjugate moiety may be linked at the C- or N-terminal or internally of
CC
     the peptide. AAR55591-631 and AAR56879-957 are examples of these peptide-
CC
     conjugate moiety compounds (Updated on 25-MAR-2003 to correct PN field.)
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                               0;
            6 KLKK 9
Qу
              1111
            7 KLKK 10
Db
```

```
ID
     AAR50431 standard; peptide; 11 AA.
XX
     AAR50431;
AC
XX
DT
     25-MAR-2003
                  (revised)
     17-OCT-1994
                  (first entry)
DT
XX
     Amphiphilic peptide #96.
DE
XX
KW
     Amphiphilic peptide; aprotic organic solvent; alcohol; antitumour;
KW
     antibiotic; antimicrobial; antifungal; antiparasitic; anticancer;
     antiviral; human; animal; plant; ion-channel; forming peptide.
KW
XX
OS
     Synthetic.
XX
PN
     WO9405308-A1.
XX
PD
     17-MAR-1994.
XX
PF
     13-AUG-1993;
                    93WO-US007694.
XX
PR
     28-AUG-1992;
                    92US-00936504.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Williams JI;
XX
     WPI; 1994-100846/12.
DR
XX
PT
     Purifying amphiphilic protein or peptide by solvent extn. - partic. for
PT
     recombinant, ion-channel forming peptide(s) such as magainins, avoids use
PT
     of chaotropic agents.
XX
PS
     Disclosure; Page 117; 135pp; English.
XX
CC
     The sequences given in AAR50336-451 are amphiphilic peptides which were
CC
     isolated by the method of the invention. A material containing
CC
     amphiphilic peptides such as these, was treated with a mixt. of aprotic
CC
     organic solvent and alcohol to form a single miscible solution. This
CC
     solution was then treated with a aqueous solution to form an aqueous
CC
     phase solution containing the peptides and an organic solvent phase, and
CC
     the peptides were isolated from the aqueous phase. The isolated peptides
CC
    may be useful as antibiotic, antimicrobial, antifungal, antiparasitic,
CC
     antitumour, anticancer, and/or antiviral agents for treatment of humans,
CC
     animals or plants. These peptides are esp. ion-channel forming peptides
CC
     which enable biologically active ions to enter cells. (Updated on 25-MAR-
CC
     2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
 Query Match
                          36.4%; Score 4; DB 2; Length 11;
 Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
 Matches
             4; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            6 KLKK 9
Qу
              Db
            3 KLKK 6
```

```
RESULT 33
AAR50448
ID
     AAR50448 standard; peptide; 11 AA.
XX
АC
     AAR50448;
XX
DT
     25-MAR-2003
                  (revised)
DT
     17-OCT-1994
                  (first entry)
XX
DE
     Amphiphilic peptide #113.
XX
KW
     Amphiphilic peptide; aprotic organic solvent; alcohol; antitumour;
ΚW
     antibiotic; antimicrobial; antifungal; antiparasitic; anticancer;
KW
     antiviral; human; animal; plant; ion-channel; forming peptide.
XX
OS
     Synthetic.
XX
ΡN
     WO9405308-A1.
XX
     17-MAR-1994.
PD
XX
PF
     13-AUG-1993;
                    93WO-US007694.
XX
PR
     28-AUG-1992;
                    92US-00936504.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Williams JI;
XX
DR
     WPI; 1994-100846/12.
XX
PT
     Purifying amphiphilic protein or peptide by solvent extn. - partic. for
PT
     recombinant, ion-channel forming peptide(s) such as magainins, avoids use
PT
     of chaotropic agents.
XX
PS
     Disclosure; Page 124; 135pp; English.
XX
CC
     The sequences given in AAR50336-451 are amphiphilic peptides which were
     isolated by the method of the invention. A material containing
CC
CC
     amphiphilic peptides such as these, was treated with a mixt. of aprotic
CC
     organic solvent and alcohol to form a single miscible solution. This
CC
     solution was then treated with a aqueous solution to form an aqueous
CC
     phase solution containing the peptides and an organic solvent phase, and
CC
     the peptides were isolated from the aqueous phase. The isolated peptides
CC
     may be useful as antibiotic, antimicrobial, antifungal, antiparasitic,
CC
     antitumour, anticancer, and/or antiviral agents for treatment of humans,
CC
     animals or plants. These peptides are esp. ion-channel forming peptides
CC
     which enable biologically active ions to enter cells. (Updated on 25-MAR-
CC
     2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
```

```
6 KLKK 9
Qу
              1111
            7 KLKK 10
Db
RESULT 34
AAR50447
     AAR50447 standard; peptide; 11 AA.
XX
AC
     AAR50447;
XX
DT
     25-MAR-2003
                  (revised)
     17-OCT-1994
DΤ
                  (first entry)
XX
     Amphiphilic peptide #112.
DE
XX
KW
     Amphiphilic peptide; aprotic organic solvent; alcohol; antitumour;
KW
     antibiotic; antimicrobial; antifungal; antiparasitic; anticancer;
KW
     antiviral; human; animal; plant; ion-channel; forming peptide.
XX
os
     Synthetic.
XX
PN
     WO9405308-A1.
XX
PD
     17-MAR-1994.
XX
PF
     13-AUG-1993;
                    93WO-US007694.
XX
PR
     28-AUG-1992;
                    92US-00936504.
XX
     (MAGA-) MAGAININ PHARM INC.
PA
XX
PΙ
     Williams JI;
XX
DR
     WPI; 1994-100846/12.
XX
PΤ
     Purifying amphiphilic protein or peptide by solvent extn. - partic. for
PT
     recombinant, ion-channel forming peptide(s) such as magainins, avoids use
PT
     of chaotropic agents.
XX
PS
     Disclosure; Page 124; 135pp; English.
XX
CC
     The sequences given in AAR50336-451 are amphiphilic peptides which were
     isolated by the method of the invention. A material containing
CC
CC
     amphiphilic peptides such as these, was treated with a mixt. of aprotic
CC
     organic solvent and alcohol to form a single miscible solution. This
CC
     solution was then treated with a aqueous solution to form an aqueous
CC
     phase solution containing the peptides and an organic solvent phase, and
     the peptides were isolated from the aqueous phase. The isolated peptides
CC
CC
     may be useful as antibiotic, antimicrobial, antifungal, antiparasitic,
CC
     antitumour, anticancer, and/or antiviral agents for treatment of humans,
CC
     animals or plants. These peptides are esp. ion-channel forming peptides
CC
     which enable biologically active ions to enter cells. (Updated on 25-MAR-
CC
     2003 to correct PN field.)
```

XX SQ

Sequence 11 AA;

```
Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            6 KLKK 9
Qу
              \pm 1111
            7 KLKK 10
Db
RESULT 35
AAR79718
     AAR79718 standard; peptide; 11 AA.
XX
AC
     AAR79718;
XX
DT
     27-FEB-1996 (first entry)
XX
DΕ
     Optimal peptide substrate for cyclin containing kinases.
XX
KW
     Peptide library; phosphorylation site; protein kinase; substrate;
KW
     inhibitor; competitor; cellular response; cell cycle control;
KW
     immune response; transcriptional activation; cell development.
XX
OS
     Synthetic.
XX
PN
     WO9518823-A2.
XX
PD
     13-JUL-1995.
XX
PF
     06-JAN-1995;
                    95WO-US000147.
XX
PR
     07-JAN-1994;
                    94US-00178570.
XX
PA
     (BETH-) BETH ISRAEL HOSPITAL ASSOC.
XX
PI
     Cantley LC, Songyang Z;
XX
DR
     WPI; 1995-255036/33.
XX
     Determn.of amino acid sequence of protein kinase phosphorylation site -
PT
PT
     by phosphorylation of peptide library and sequencing phospho:peptide(s)
PT
     formed, also new substrates and their analogues for modulating or
     detecting protein kinase.
PT
XX
PS
     Example 10; Page 40; 131pp; English.
XX
CC
     An oriented degenerate peptide library of the amino acid formula AAR79661
CC
     was constructed to isolate the amino acid sequences at the
СC
     phosphorylation sites of a protein kinase eg. protein kinase A, cyclin
CC
     B/p33(cdc2), src family kinases, etc. Peptides which are phosphorylated
CC
     are isolated and their amino acid sequences are compared to known
CC
     substrate/inhibitor peptide sequences for that protein kinase. The
CC
     peptides AAR79718-R79721 are synthetic peptides designed to be optimal
CC
     substrates for a range of protein kinases. This peptide sequence is
CC
     designed as a substrate for cyclin containing kinases, e.g cyclin
CC
     B/p33(cdc2) or cyclin A/p33(CDK2). The isolated peptides can be used to
```

```
screen cpds. for effects on the protein kinase activity, generate
CC
CC
     antibodies to identify native kinase substrates, or modulate a variety of
     cellular responses in which protein kinases are involved eg. cell cycle
CC
CC
     control, immune response, transcriptional activation or cell development
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
            4; Conservative 0; Mismatches
                                                   0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            8 KKKA 11
Qy
              8 KKKA 11
Db
RESULT 36
AAW03066
     AAW03066 standard; peptide; 11 AA.
ΙD
XX
AC
     AAW03066;
XX
DT
     02-MAR-1997 (first entry)
XX
DΕ
     Polycationic polypeptide component of peptide-oligonucleotide conjugate.
XX
KW
     polycationic polypeptide; polyanionic oligonucleotide; antigene;
KW
     antisense therapy.
XX
     Synthetic.
OS
XX
FΗ
                     Location/Qualifiers
     Key
FT
     Modified-site
FT
                     /note= "this residue is connected via the thiol group and
                     a linking group to the 5' end of the oligonucleotide
FT
FT
                     AAT01822"
FT
     Modified-site
                     11
FT
                     /note= "this residue is connected via the thiol group and
FT
                     a linking group to the 3' end of the oligonucleotide
FT
                     AAT01822"
XX
PN
     WO9524222-A1.
XX
PD
     14-SEP-1995.
XX
PF
     07-MAR-1995;
                    95WO-US002894.
XX
PR
     07-MAR-1994;
                    94US-00207438.
XX
PA
     (UYNE-) UNIV NEW JERSEY.
XX
PΙ
     Stein S, Wei Z, Zhu T,
                               Tung C;
XX
DR
     WPI; 1995-328105/42.
XX
PT
     New cyclic conjugate of polycationic polymer and oligo:nucleotide(s) -
PT
     covalently bonded at each end by crosslinking agent, useful for
```

```
PΤ
     anti:sense and anti:gene therapy, have strong binding to target and good
PT
     in-vivo stability.
XX
РS
     Example; Page 27; 49pp; English.
XX
CC
     Cyclic polycationic polymer-oligonucleotide conjugates are provided which
CC
     comprise a polycationic polymer covalently bonded at each end to the 3'
CC
     and 5' terminal nucleotides of a polyanionic oligonucleotide via a
CC
     crosslinking agent. Preferably the polycationic polymer is a polypeptide
     Cys-(LysLeu)2-Lys-(LysLeu)2-Cys (the present sequence) or Cys-(delta-
CC
     Orn) 10-Cys; the polyanionic oligonucleotide is 5'-CATTTCTTTATT-
CC
CC
     3'(AAT01822); and each linking group is of formula -CH2CONH- where each -
CC
     CH2 is attached to the thiol group of each Cys and each NH- is attached
CC
     to the 5' and 3' terminals respectively of the oligonucleotide. The
     conjugates can be used for antisense and antigene therapy. They have
CC
CC
     enhanced stability in-vivo because exonuclease digestion is minimised
CC
     when both the 3' and 5' termini are blocked; they have enhanced
CC
     bioavailability because the ability of the oligonucleotide to penetrate
CC
     through cellular membranes is enhanced when its negative charges are ion-
CC
     paired; and they have low toxicity because the metabolic degradation
CC
     products of the conjugates are amino acids and nucleotides
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
  Matches
             4; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            6 KLKK 9
Qy
              1 | |
Db
            3 KLKK 6
RESULT 37
AAR90267
ΙD
     AAR90267 standard; peptide; 11 AA.
XX
АC
     AAR90267;
XX
DT
     10-JUL-1996 (first entry)
XX
DE
     Ion-channel forming peptide #128 with lipophilic N-terminal group.
XX
KW
     Ion channel forming peptide; lipophilic; N-terminal modification;
KW
     magainin; inhibition; cell growth; viral replication; ionophore;
ΚW
     membrane permeability; antimicrobial; anti-bacterial; antibiotic;
KW
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
XX
OS
     Synthetic.
XX
FH
     Kev
                     Location/Qualifiers
FT
     Modified-site
FT
                     /note= "N-terminal amino group is mono- or di-substd. by
FT
                     lipophilic moiety, esp. octanoyl"
XX
PN
     WO9519370-A1.
XX
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20-JUL-1995.
PD
XX
PF
     18-JAN-1995;
                    95WO-US000714.
XX
PR
     18-JAN-1994;
                    94US-00184462.
XX
     (MAGA-) MAGAININ PHARM INC.
PA
XX
PΙ
     Kari U, Williams TJ, Mclane M;
XX
     WPI; 1995-263826/34.
DR
XX
     Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
PT
PТ
     gps. - useful e.g. as antiviral, antibacterial, antiparasitic or
PT
     antitumour agents.
XX
PS
     Claim 30; Page 113; 139pp; English.
XX
CC
     The present peptide is a specific example corresp. to a highly generic
CC
     formula for ion channel forming peptides (ionophores). These ionophores
CC
     are known to have a broad range of potent antibiotic activity against
CC
     microorganisms including gram-positive and gram-negative bacteria, fungi,
CC
     viruses, protozoa and parasites. N-terminal modification (pref. mono-
CC
     substn. by octanoyl) to produce an ion-channel forming peptide having a
CC
     lipophilic N-terminus increases the biological activity of the peptides
CC
     against target cells, viruses and virally-infected cells, compared to
CC
     peptides substd. with an acetyl group at the N-terminus. Compositions
CC
     comprising the peptides with lipophilic modifications are claimed for
CC
     inhibiting growth of a target cell, virus or virally-infected cell
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative
                                0; Mismatches
                                                                  0; Gaps
                                                   0; Indels
                                                                              0;
            6 KLKK 9
Qу
              IIIII
            7 KLKK 10
RESULT 38
AAR90259
ID
     AAR90259 standard; peptide; 11 AA.
XX
AC
     AAR90259;
XX
DT
     10-JUL-1996 (first entry)
XX
DE
     Ion-channel forming peptide #111 with lipophilic N-terminal group.
XX
KW
     Ion channel forming peptide; lipophilic; N-terminal modification;
KW
     magainin; inhibition; cell growth; viral replication; ionophore;
KW
     membrane permeability; antimicrobial; anti-bacterial; antibiotic;
KW
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
XX
OS
     Synthetic.
```

```
XX
FH
     Key
                     Location/Qualifiers
FT
     Modified-site
                     /note= "N-terminal amino group is mono- or di-substd. by
FT
FT
                     lipophilic moiety, esp. octanoyl"
XX
     W09519370-A1.
PN
XX
     20-JUL-1995.
PD
XX
                    95WO-US000714.
PF
     18-JAN-1995;
XX
     18-JAN-1994;
                    94US-00184462.
PR
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Kari U, Williams TJ, Mclane M;
XX
DR
     WPI; 1995-263826/34.
XX
PT
     Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
PT
     gps. - useful e.g. as antiviral, antibacterial, antiparasitic or
PT
     antitumour agents.
XX
PS
     Claim 25; Page 108; 139pp; English.
XX
CC
     The present peptide is a specific example corresp. to a highly generic
     formula for ion channel forming peptides (ionophores). These ionophores
CC
CC
     are known to have a broad range of potent antibiotic activity against
     microorganisms including gram-positive and gram-negative bacteria, fungi,
CC
     viruses, protozoa and parasites. N-terminal modification (pref. mono-
CC
CC
     substn. by octanoyl) to produce an ion-channel forming peptide having a
CC
     lipophilic N-terminus increases the biological activity of the peptides
CC
     against target cells, viruses and virally-infected cells, compared to
CC
     peptides substd. with an acetyl group at the N-terminus. Compositions
CC
     comprising the peptides with lipophilic modifications are claimed for
CC
     inhibiting growth of a target cell, virus or virally-infected cell
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative
                              0; Mismatches
                                                    0; Indels
                                                                               0;
                                                                  0; Gaps
Qy
            6 KLKK 9
              1111
Db
            7 KLKK 10
RESULT 39
AAR91792
     AAR91792 standard; peptide; 11 AA.
ID
XX
AC
     AAR91792;
XX
DT
     11-JUL-1996 (first entry)
XX
```

```
DE
     Ion-channel forming peptide #141 with lipophilic N-terminal group.
XX
KW
     Ion channel forming peptide; lipophilic; N-terminal modification;
     magainin; inhibition; cell growth; viral replication; ionophore;
KW
     membrane permeability; antimicrobial; anti-bacterial; antibiotic;
KW
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
KW
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Modified-site
FT
                     /note= "N-terminal amino group is mono-substd. by
                     octanoyl"
FΤ
FT
     Modified-site
FT
                     /label= Orn
     Modified-site
FT
                     /note= "C-terminal amide"
FT
XX
PN
     WO9519370-A1.
XX
PD
     20-JUL-1995.
XX
PF
                    95WO-US000714.
     18-JAN-1995;
XX
PR
     18-JAN-1994;
                    94US-00184462.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Kari U, Williams TJ, Mclane M;
XX
     WPI; 1995-263826/34.
DR
XX
PT
     Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
PT
     gps. - useful e.g. as antiviral, antibacterial, antiparasitic or
PT
     antitumour agents.
XX
PS
     Example 1; Page 116; 139pp; English.
XX
CC
     Various ion channel forming peptides (ionophores) in C-terminal amide
CC
     form were modified by N-terminal substn. with a lipophilic group and then
CC
     tested for activity against S.aureus ATCC 25923 (S), P.aeruginosa ATCC
CC
     27853 (P), E.coli ATCC 25922 (E) and C.albicans (C). Results indicated
     that when a biologically active peptide is substd. with a lipophilic
CC
CC
     moiety, the peptide has increased activity against a range of
CC
     microorganisms. Compositions comprising such peptides with lipophilic
CC
     modifications are claimed for inhibiting growth of a target cell, virus
CC
     or virally-infected cell. Minimum inhibitory concentrations (in
CC
     microgram/ml) for the present peptide against S, P, E and C,
CC
     respectively, were: 4, 4, 8 and 32
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
           4; Conservative 0; Mismatches
  Matches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
```

CC

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RESULT 40
AAR90260
     AAR90260 standard; peptide; 11 AA.
XX
AC
     AAR90260;
XX
DT
     10-JUL-1996
                  (first entry)
XX
DE
     Ion-channel forming peptide #112 with lipophilic N-terminal group.
XX
KW
     Ion channel forming peptide; lipophilic; N-terminal modification;
KW
     magainin; inhibition; cell growth; viral replication; ionophore;
KW
     membrane permeability; antimicrobial; anti-bacterial; antibiotic;
KW
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
XX
os
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
FT
     Modified-site
FT
                     /note= "N-terminal amino group is mono- or di-substd. by
FT
                     lipophilic moiety, esp. octanoyl"
XX
PN
     WO9519370-A1.
XX
     20-JUL-1995.
PD
XX
PF
     18-JAN-1995;
                    95WO-US000714.
XX
PR
     18-JAN-1994;
                    94US-00184462.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Kari U, Williams TJ, Mclane M;
XX
     WPI; 1995-263826/34.
DR
XX
PT
     Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
     gps. - useful e.g. as antiviral, antibacterial, antiparasitic or
PT
PT
     antitumour agents.
XX
PS
     Claim 25; Page 108; 139pp; English.
XX
CC
```

The present peptide is a specific example corresp. to a highly generic formula for ion channel forming peptides (ionophores). These ionophores are known to have a broad range of potent antibiotic activity against microorganisms including gram-positive and gram-negative bacteria, fungi, viruses, protozoa and parasites. N-terminal modification (pref. monosubstn. by octanoyl) to produce an ion-channel forming peptide having a lipophilic N-terminus increases the biological activity of the peptides against target cells, viruses and virally-infected cells, compared to peptides substd. with an acetyl group at the N-terminus. Compositions comprising the peptides with lipophilic modifications are claimed for inhibiting growth of a target cell, virus or virally-infected cell

```
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
             4; Conservative 0; Mismatches
  Matches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            6 KLKK 9
QУ
              1111
            3 KLKK 6
Db
RESULT 41
AAR91797
     AAR91797 standard; peptide; 11 AA.
XX
AC
     AAR91797;
XX
DT
     11-JUL-1996 (first entry)
XX
DE
     Ion-channel forming peptide #146 with lipophilic N-terminal group.
XX
     Ion channel forming peptide; lipophilic; N-terminal modification;
KW
     magainin; inhibition; cell growth; viral replication; ionophore;
KW
     membrane permeability; antimicrobial; anti-bacterial; antibiotic;
KW
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
KW
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
     Key
FT
     Modified-site
FT
                     /note= "N-terminal amino group is mono-substd. by
FT
                     octanovl"
FT
     Modified-site
                     11
FT
                     /note= "C-terminal amide"
XX
PN
     WO9519370-A1.
XX
     20-JUL-1995.
PD
XX
PF
     18-JAN-1995;
                    95WO-US000714.
XX
PR
     18-JAN-1994;
                    94US-00184462.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Kari U, Williams TJ, Mclane M;
XX
DR
     WPI; 1995-263826/34.
XX
PT
     Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
PΤ
     qps. - useful e.q. as antiviral, antibacterial, antiparasitic or
PT
     antitumour agents.
XX
     Example 1; Page 118; 139pp; English.
PS
XX
     Various ion channel forming peptides (ionophores) in C-terminal amide
CC
```

XX

```
CC
     form were modified by N-terminal substn. with a lipophilic group and then
CC
     tested for activity against S.aureus ATCC 25923 (S), P.aeruginosa ATCC
CC
     27853 (P), E.coli ATCC 25922 (E) and C.albicans (C). Results indicated
CC
     that when a biologically active peptide is substd. with a lipophilic
     moiety, the peptide has increased activity against a range of
CC
CC
     microorganisms. Compositions comprising such peptides with lipophilic
     modifications are claimed for inhibiting growth of a target cell, virus
CC
CC
     or virally-infected cell. Minimum inhibitory concentrations (in
CC
     microgram/ml) for the present peptide against S, P, E and C,
CC
     respectively, were: 8, 4, 16 and 32
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0:
Qу
            6 KLKK 9
              IIIII
            7 KLKK 10
Db
RESULT 42
AAR90137
ID
     AAR90137 standard; peptide; 11 AA.
XX
AC
     AAR90137;
XX
DT
     10-JUL-1996 (first entry)
XX
DE
     Ion-channel forming peptide #94 modified by N-terminal lipophilic gp.
XX
KW
     Ion channel forming peptide; lipophilic; N-terminal modification;
     magainin; inhibition; cell growth; viral replication; ionophore;
KW
KW
     membrane permeability; antimicrobial; anti-bacterial; antibiotic;
KW
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Modified-site
FT
                     /note= "N-terminal amino group is mono- or di-substd. by
FT
                     lipophilic moiety, esp. octanoyl"
XX
PN
     WO9519370-A1.
XX
PD
     20-JUL-1995.
XX
PF
     18-JAN-1995;
                    95WO-US000714.
XX
PR
     18-JAN-1994;
                    94US-00184462.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Kari U, Williams TJ, Mclane M;
XX
DR
     WPI; 1995-263826/34.
```

```
XX
PT
     Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
PT
     gps. - useful e.g. as antiviral, antibacterial, antiparasitic or
PT
     antitumour agents.
XX
PS
     Claim 23; Page 102; 139pp; English.
XX
CC
     The present peptide is a specific example corresp. to a highly generic
CC
     formula for ion channel forming peptides (ionophores). These ionophores
     are known to have a broad range of potent antibiotic activity against
CC
     microorganisms including gram-positive and gram-negative bacteria, fungi,
CC
CC
     viruses, protozoa and parasites. N-terminal modification (pref. mono-
CC
     substn. by octanoyl) to produce an ion-channel forming peptide having a
CC
     lipophilic N-terminus increases the biological activity of the peptides
CC
     against target cells, viruses and virally-infected cells, compared to
CC
     peptides substd. with an acetyl group at the N-terminus. Compositions
CC
     comprising the peptides with lipophilic modifications are claimed for
CC
     inhibiting growth of a target cell, virus or virally-infected cell
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2;
                                                    Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
             4; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            6 KLKK 9
Qу
              IIIII
            3 KLKK 6
Db
RESULT 43
AAR90266
     AAR90266 standard; peptide; 11 AA.
XX
AC
     AAR90266;
XX
DT
     10-JUL-1996 (first entry)
XX
DE
     Ion-channel forming peptide #127 with lipophilic N-terminal group.
XX
KW
     Ion channel forming peptide; lipophilic; N-terminal modification;
     magainin; inhibition; cell growth; viral replication; ionophore;
KW
KW
     membrane permeability; antimicrobial; anti-bacterial; antibiotic;
KW
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Modified-site
FT
                     /note= "N-terminal amino group is mono- or di-substd. by
FT
                     lipophilic moiety, esp. octanoyl"
XX
PN
     WO9519370-A1.
XX
PD
     20-JUL-1995.
XX
PF
     18-JAN-1995;
                    95WO-US000714.
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XX
PR
     18-JAN-1994;
                    94US-00184462.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
     Kari U, Williams TJ, Mclane M;
PΙ
XX
DR
     WPI; 1995-263826/34.
XX
     Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
PT
     qps. - useful e.q. as antiviral, antibacterial, antiparasitic or
PT
PT
     antitumour agents.
XX
     Claim 30; Page 112; 139pp; English.
PS
XX
CC
     The present peptide is a specific example corresp. to a highly generic
CC
     formula for ion channel forming peptides (ionophores). These ionophores
CC
     are known to have a broad range of potent antibiotic activity against
     microorganisms including gram-positive and gram-negative bacteria, fungi,
CC
     viruses, protozoa and parasites. N-terminal modification (pref. mono-
CC
     substn. by octanoyl) to produce an ion-channel forming peptide having a
CC
     lipophilic N-terminus increases the biological activity of the peptides
CC
     against target cells, viruses and virally-infected cells, compared to
CC
     peptides substd. with an acetyl group at the N-terminus. Compositions
CC
     comprising the peptides with lipophilic modifications are claimed for
CC
CC
     inhibiting growth of a target cell, virus or virally-infected cell
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
          4; Conservative
            6 KLKK 9
Qу
              1111
            7 KLKK 10
Db
RESULT 44
AAR90258
     AAR90258 standard; peptide; 11 AA.
XX
AC
     AAR90258;
XX
DT
     10-JUL-1996 (first entry)
XX
DE
     Ion-channel forming peptide #110 with lipophilic N-terminal group.
XX
ΚW
     Ion channel forming peptide; lipophilic; N-terminal modification;
     magainin; inhibition; cell growth; viral replication; ionophore;
KW
KW
     membrane permeability; antimicrobial; anti-bacterial; antibiotic;
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
ΚW
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
FT
     Modified-site
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/note= "N-terminal amino group is mono- or di-substd. by
FT
FT
                     lipophilic moiety, esp. octanoyl"
XX
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PN
XX
PD
     20-JUL-1995.
XX
PF
     18-JAN-1995;
                    95WO-US000714.
XX
PR
     18-JAN-1994;
                    94US-00184462.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Kari U, Williams TJ, Mclane M;
XX
DR
     WPI; 1995-263826/34.
XX
PT
     Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
     qps. - useful e.g. as antiviral, antibacterial, antiparasitic or
PT
PT
     antitumour agents.
XX
PS
     Claim 25; Page 107; 139pp; English.
XX
CC
     The present peptide is a specific example corresp. to a highly generic
     formula for ion channel forming peptides (ionophores). These ionophores
CC
CC
     are known to have a broad range of potent antibiotic activity against
CC
     microorganisms including gram-positive and gram-negative bacteria, fungi,
     viruses, protozoa and parasites. N-terminal modification (pref. mono-
CC
CC
     substn. by octanoyl) to produce an ion-channel forming peptide having a
CC
     lipophilic N-terminus increases the biological activity of the peptides
     against target cells, viruses and virally-infected cells, compared to
CC
CC
     peptides substd. with an acetyl group at the N-terminus. Compositions
CC
     comprising the peptides with lipophilic modifications are claimed for
CC
     inhibiting growth of a target cell, virus or virally-infected cell
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
                                                                              0;
  Matches
             4; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
            6 KLKK 9
Qу
              1111
            7 KLKK 10
Dh
RESULT 45
AAR90269
ΙD
     AAR90269 standard; peptide; 11 AA.
XX
AC
     AAR90269;
XX
\mathbf{DT}
     10-JUL-1996 (first entry)
XX
DE
     Ion-channel forming peptide #130 with lipophilic N-terminal group.
XX
KW
     Ion channel forming peptide; lipophilic; N-terminal modification;
```

```
KW
     magainin; inhibition; cell growth; viral replication; ionophore;
     membrane permeability; antimicrobial; anti-bacterial; antibiotic;
KW
KW
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
XX
     Synthetic.
OS
XX
FΗ
     Key
                     Location/Oualifiers
FT
     Modified-site
FΤ
                     /note= "N-terminal amino group is mono- or di-substd. by
FT
                     lipophilic moiety, esp. octanoyl"
XX
PN
     WO9519370-A1.
XX
     20-JUL-1995.
PD
XX
     18-JAN-1995;
                    95WO-US000714.
PF
XX
PR
     18-JAN-1994;
                    94US-00184462.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Kari U, Williams TJ, Mclane M;
XX
DR
     WPI; 1995-263826/34.
XX
PT
     Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
     qps. - useful e.g. as antiviral, antibacterial, antiparasitic or
PT
PT
     antitumour agents.
XX
PS
     Claim 34; Page 113; 139pp; English.
XX
     The present peptide is a specific example corresp. to a highly generic
CC
CC
     formula for ion channel forming peptides (ionophores). These ionophores
     are known to have a broad range of potent antibiotic activity against
CC
CC
     microorganisms including gram-positive and gram-negative bacteria, fungi,
CC
     viruses, protozoa and parasites. N-terminal modification (pref. mono-
     substn. by octanoyl) to produce an ion-channel forming peptide having a
CC
     lipophilic N-terminus increases the biological activity of the peptides
CC
     against target cells, viruses and virally-infected cells, compared to
CC
CC
     peptides substd. with an acetyl group at the N-terminus. Compositions
CC
     comprising the peptides with lipophilic modifications are claimed for
CC
     inhibiting growth of a target cell, virus or virally-infected cell
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                     Gaps
                                                                              0;
            6 KLKK 9
Qy
              1111
            7 KLKK 10
Db
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RESULT 46 AAR99096

ID AAR99096 standard; peptide; 11 AA.

```
XX
AC
     AAR99096;
XX
DT
     28-OCT-1996 (first entry)
XX
DE
     Magainin-derived antimicrobial STD-inhibiting peptide, MSI-591.
XX
KW
     STD; sexually transmitted disease; HIV; human immunodeficiency virus;
     herpes simplex virus; HSV; Neisseria gonnorhoeae; Candida; Chlamydia;
KW
     magainin; antimicrobial; squalamine.
KW
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Modified-site
                     /label= OTHER
FT
                     /note= "OCT-Leu, where OCT is undefined in the
FT
FT
                     specification"
XX
PN
     W09608270-A2.
XX
PD
     21-MAR-1996.
XX
PF
     13-SEP-1995;
                    95WO-US011675.
XX
PR
     13-SEP-1994;
                    94US-00305475.
XX
     (MAGA-) MAGAININ PHARM INC.
PA
XX
PΙ
     Jacob L, Zasloff M, Williams T, Bedi G;
XX
DR
     WPI; 1996-179725/18.
XX
PΤ
     Inhibiting sexually transmitted disease e.g. HIV or herpes simplex - by
     administering magainin antimicrobial or squalamine cpd. to inhibit
PT
PT
     transmission.
XX
PS
     Claim 9; Page 55; 60pp; English.
XX
CC
     AAR99095-R99107 are antimicrobial, magainin-analogue peptides that may be
     used to treat sexually transmitted diseases (STDs) caused by Chlamydia,
CC
CC
     HIV, herpes simplex virus, Neisseria gonnorhoeae or Candida infection.
CC
     The peptides inhibit STDs by either killing the infectious organism,
CC
     impeding the infection mechanism or interrupting the replication cycle of
CC
     the organism. Squalamine (an aminosterol host defence molecule of the dog
CC
     fish shark Squalus acanthias) and PGLa (a frog antimicrobial peptide)
CC
     analogues may also be useful in inhibiting STD infection and transmission
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
  Matches
             4; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            6 KLKK 9
Qу
              1111
            7 KLKK 10
Db
```

```
RESULT 47
AAR99123
ID
     AAR99123 standard; peptide; 11 AA.
XX
AC
     AAR99123;
XX
DT
     28-OCT-1996 (first entry)
XX
DE
     Magainin-derived antimicrobial STD-inhibiting peptide, MSI-591.
XX
KW
     STD; sexually transmitted disease; HIV; human immunodeficiency virus;
KW
     herpes simplex virus; HSV; Neisseria gonnorhoeae; Candida; Chlamydia;
KW
     magainin; antimicrobial; squalamine.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Misc-difference 1
FT
                     /note= "OCT-Leu, where OCT is undefined in the
                     specification"
FT
FT
     Modified-site
                     11
                     /note= "amidated"
FT
XX
     WO9608270-A2.
PN
XX
PD
     21-MAR-1996.
XX
                    95WO-US011675.
PF
     13-SEP-1995;
XX
PR
     13-SEP-1994;
                    94US-00305475.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
     Jacob L, Zasloff M, Williams T, Bedi G;
ΡĪ
XX
DR
     WPI; 1996-179725/18.
XX
     Inhibiting sexually transmitted disease e.g. HIV or herpes simplex - by
PT
     administering magainin antimicrobial or squalamine cpd. to inhibit
PT
РΤ
     transmission.
XX
     Example 4; Page 39; 60pp; English.
PS
XX
CC
     AAR99116-R99123 are antimicrobial, magainin-analogue peptides that may be
CC
     used to treat sexually transmitted diseases (STDs) caused by Chlamydia,
CC
     HIV, herpes simplex virus, Neisseria gonnorhoeae or Candida infection.
CC
     The peptides inhibit STDs by either killing the infectious organism,
     impeding the infection mechanism or interrupting the replication cycle of
CC
CC
     the organism. Squalamine (an aminosterol host defence molecule of the dog
     fish shark Squalus acanthias) and PGLa (a frog antimicrobial peptide)
CC
CC
     analogues may also be useful in inhibiting STD infection and transmission
XX
SQ
     Sequence 11 AA;
```

36.4%; Score 4; DB 2; Length 11;

Query Match

```
Best Local Similarity 100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative 0; Mismatches 0; Indels
                                                                              0;
                                                                  0; Gaps
            6 KLKK 9
Qу
              \perp
            7 KLKK 10
Db
RESULT 48
AAW04041
     AAW04041 standard; peptide; 11 AA.
XX
AC
     AAW04041;
XX
DT
     01-NOV-1996 (first entry)
XX
DE
     Antifungal peptide XMP.350.
XX
KW
     Antifungal peptide; inhibitor; Domain III; polymorphonuclear leukocyte;
KW
     bactericidal/permeability-increasing protein; BPI; mammalian; PMN; fungi;
     neutrophil; replication inhibitor; fungal infection; Aspergillus;
KW
KW
     Cryptococcus; Candida; C.albicans; C.galabrat; C.krusei; C.lusitaniae;
KW
     C.parapsilosis; C.tropicalis; therapy.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
FT
     Modified-site
                     /note= "amidated"
FT
XX
     WO9608509-A1.
PN
XX
PD
     21-MAR-1996.
XX
PF
     20-JUL-1995;
                    95WO-US009262.
XX
PR
     15-SEP-1994:
                    94US-00306473.
PR
     13-JAN-1995;
                    95US-00372105.
XX
PA
     (XOMA ) XOMA CORP.
XX
PΙ
     Little RG, Lim E, Fadem MB;
XX
DR
     WPI; 1996-179900/18.
XX
PT
     Antifungal peptide(s) derived from Domain III of BPI protein - used in
PT
     vitro for killing or inhibiting replication of fungi, esp. Candida
PT
     species.
XX
PS
     Claim 5; Page 163; 199pp; English.
XX
CC
     AAW04000-W04160 represent antifungal peptides. These sequences are based
CC
     on (or derived from) Domain III of the bactericidal/permeability-
CC
     increasing protein (BPI). BPI is a protein that can be isolated from the
CC
     granules of mammalian polymorphonuclear leukocytes (PMNs or neutrophils).
     These antifungal peptides can be used for killing, or inhibiting
CC
CC
     replication of, fungi in vitro. These sequences can also be used for
```

```
Aspergillus and Cryptococcus. The sequences are especially useful for
CC
     treating C.albicans, C.galabrat, C.krusei, C.lusitaniae, C.parapsilosis
CC
CC
     and C.tropicalis infections
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
            4; Conservative 0; Mismatches 0; Indels
  Matches
                                                                  0; Gaps
                                                                              0;
            7 LKKK 10
Qу
              +1111
Db
            8 LKKK 11
RESULT 49
AAW39163
ID
     AAW39163 standard; peptide; 11 AA.
XX
AC
     AAW39163;
XX
DT
     27-AUG-2003
                 (revised)
DT
     27-APR-1998
                 (first entry)
XX
     RHAMM binding domain 1 consensus motif peptide.
DE
XX
KW
     Hyaluronan receptor; receptor for hyaluronic acid mediated motility;
     RHAMM; glycosaminoglycan; binding domain; human; mouse; rat; oncogene;
KW
     growth factor; cell locomotion disorder; treatment; dementia; detection;
KW
     inflammatory disorder; autoimmune disease; diagnosis; prognosis.
KW
XX
OS
     Homo sapiens.
OS
     Mus sp.
OS
     Rattus sp.
XX
     WO9738098-A1.
PN
XX
PD
     16-OCT-1997.
XX
                    97WO-CA000240.
PF
     10-APR-1997;
XX
PR
     10-APR-1996;
                    96GB-00007441.
XX
     (UYMA-) UNIV MANITOBA.
PΑ
PA
     (MANI-) MANITOBA CANCER TREATMENT & RES FOUND.
XX
PΙ
                Entwistle J;
     Turley EA,
XX
DR
     WPI; 1997-512715/47.
XX
PT
     Isolated human receptor for hyaluronic acid mediated motility - used to
PT
     develop products for treating e.g. tumours, inflammatory disorders,
PT
     dementia, AIDS, diabetes and auto-immune diseases.
XX
PS
     Claim 7; Fig 1; 66pp; English.
XX
```

treatment of a fungal infection involving fungi from the species Candida,

```
CC
     and rat hyaluronan receptor corresponding to amino acid position 402-412.
CC
     This receptor is also known as the receptor for hyaluronic acid mediated
CC
     motility (RHAMM). Hyaluronan is a large glycosaminoglycan that is
     ubiquitous in the extracellular matrix and whose synthesis has been
CC
     linked to cell migration, growth and transformation. It interacts with
CC
CC
     cell surfaces via specific protein receptors, e.g. RHAMM, that mediate
CC
     many biological effects. The RHAMM/Hyaluronic acid interaction is
     involved in oncogene-and growth factor-mediated cell locomotion. The
CC
CC
     products can be used in the treatment of disorders involving cell
CC
     locomotion, e.g. tumour invasion, birth defects, acute and chronic
CC
     inflammatory disorders, Alzheimer's and other forms of dementia,
CC
     including Parkinson's and Huntington's diseases, AIDS, diabetes,
CC
     autoimmune diseases, corneal dysplasia and hypertrophies, burns, surgical
CC
     incisions and adhesions, strokes and multiple sclerosis. They can also be
CC
     used in e.g. CNS and spinal cord regeneration, contraception and in vitro
CC
     fertilisation and embryo development. The products can also be used in
CC
     detection, diagnosis and prognosis. (Updated on 27-AUG-2003 to correct OS
CC
     field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative
                               0; Mismatches
                                                  0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
Qу
            5 VKLK 8
              IIIII
Db
            8 VKLK 11
RESULT 50
AAW44580
ID
     AAW44580 standard; peptide; 11 AA.
XX
AC
     AAW44580;
XX
DT
     27-APR-1998 (first entry)
XX
DE
     Anti-fungal peptide #181 based on BPI protein (residues 142-169).
XX
KW
     Anti-fungal peptide; bactericidal-permeability-increasing protein; BPI;
KW
     polymorphonuclear leukocyte; fungicide.
XX
OS
     Synthetic.
OS
     Mammalia.
XX
FH
                     Location/Qualifiers
     Key
FT
     Modified-site
FT
                     /note= "C-terminal amide"
XX
PN
     W09704008-A1.
XX
PD
     06-FEB-1997.
XX
PF
     21-MAR-1996;
                    96WO-US003845.
XX
```

This peptide represents a motif found in a binding domain of human, mouse

```
20-JUL-1995;
                    95US-00504841.
PR
XX
PA
     (XOMA ) XOMA CORP.
XX
PI
     Little RG, Lim E, Fadem MB;
XX
DR
     WPI; 1997-132578/12.
XX
PT
     Anti-fungal peptide(s) derived from or based on domain III of
     bactericidal-permeability-increasing protein - are used in vitro or in
PT
PT
     vivo as a fungicides.
XX
PS
     Claim 1; Page 200; 230pp; English.
XX
CC
     This is a specifically claimed anti-fungal peptide which is based on
CC
     domain III (amino acids 142-160) of bactericidal-permeability-increasing
     protein (BPI), isolated from the granules of mammalian polymorphonuclear
CC
CC
     leukocytes. It is used in compositions with diluents, carriers or
CC
     adjuvants to treat fungal infections in patients. It may also be used in
     vitro to kill or inhibit the replication of fungi, such as in
CC
CC
     decontaminating fluids and sterilising medical and implant devices
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
  Matches
             4; Conservative
                                                                              0;
            7 LKKK 10
Qу
              8 LKKK 11
Db
RESULT 51
AAW43762
ID
     AAW43762 standard; peptide; 11 AA.
XX
AC
    AAW43762;
XX
DT
     20-APR-1998
                 (first entry)
XX
DE
     Bactericidal/permeability increasing peptide XMP.350.
XX
KW
     Bactericidal/permeability increasing peptide; BPI; fusion protein;
     bacterial infection; fungal infection; endotoxin; heparin; angiogenesis;
KW
KW
     fungicidal; recombinant DNA; vector.
XX
OS
     Homo sapiens.
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
FT
     Modified-site
                     11
FT
                     /note= "Amidated"
XX
PN
     WO9735009-A1.
XX
PD
     25-SEP-1997.
```

```
XX
PF
     18-MAR-1997;
                    97WO-US005287.
XX
PR
     22-MAR-1996;
                    96US-00621803.
XX
PA
     (XOMA ) XOMA CORP.
XX
PΙ
     Better MD;
XX
     WPI; 1997-480215/44.
DR
XX
PТ
     Recombinant production of bactericidal/permeability increasing protein -
PT
     by expression as a fusion protein in microbial host cells, then cleaving
PT
     the BPI peptide from the carrier.
XX
PS
     Claim 10; Page 130; 186pp; English.
XX
CC
     A new recombinant DNA vector construct has been developed which encodes a
CC
     fusion protein and is suitable for introduction into a bacterial host.
CC
     The vector comprises: (a) DNA encoding at least one cationic
     bactericidal/permeability increasing peptide (BPI), (b) DNA encoding a
CC
CC
     carrier protein, and (c) DNA encoding an amino acid (aa) cleavage site
CC
     located between (a) and (b). The present sequence represents a
     specifically claimed BPI peptide. The peptides have many uses including
CC
CC
     the treatment of bacterial and fungal infections. BPI peptides also bind
CC
     to endotoxins and heparin, neutralising their effects. The peptides have
CC
     further been shown to inhibit angiogenesis (partly due to heparin-binding
CC
     activity). The fusion proteins have been found to be expressed in large
CC
     amounts without significant proteolysis, and in some cases are actually
CC
     secreted from the host cells. This allows the indirect production of anti
CC
     -microbial BPI peptides in microbial hosts
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
             4; Conservative
                                                                  0; Gaps
                                 0; Mismatches
                                                    0;
                                                      Indels
                                                                              0;
Qу
            7 LKKK 10
              +1+1
            8 LKKK 11
RESULT 52
AAW65554
     AAW65554 standard; peptide; 11 AA.
ID
XX
AC
     AAW65554;
XX
DT
     15-OCT-1998 (first entry)
XX
DE
     Multiply branched peptide construct.
XX
KW
     Human immunodeficiency virus; envelope transmembrane glycoprotein; HIV;
KW
     multiple branch peptide construction; polylysine core; receptor affinity;
KW
     virostatic; MBPC; multiply branched peptide construct.
XX
```

```
OS
     Synthetic.
     Human immunodeficiency virus.
OS
XX
FH
                     Location/Qualifiers
     Peptide
                     1. .7
FT
FT
                     /label= peptide derived from gp41 of HIV
FT
                     /note= "attached to the polylysine core via the alpha
FT
                     amino group of Lys(8); a second copy of the 7-mer is
FT
                     linked to Lys(8) via the omega amino group"
FT
     Modified-site
FT
                     /note= "Lys(8) is linked to one copy of the gp41-derived
FT
                     peptide of HIV through the alpha amino group, and two a
FT
                     second copy of the peptide (not shown) via the omega
FT
                     group"
FT
     Modified-site
                     9
FT
                     /note= "the alpha amino group of of Lys(9) forms a
FT
                     peptide linkage with the carboxyl group of Lys(8); the
                     omega amino group of Lys(9) forms a peptide bond with a
FT
FT
                     second Lys residue analogous to Lys(8)"
     Modified-site
FT
FT
                     /note= "the alpha amimo group of Lys(10) forms a peptide
FT
                     linkage with the carboxyl amino group of Lys(9); the
                     omega amino group of Lys(10) forms a peptide bond with a
FT
FT
                     second Lys residue analagous to Lys(9)"
FT
    Modified-site
                     /label= bAla
FT
XX
PN
     WO9829443-A1.
XX
     09-JUL-1998.
PD
XX
                    97WO-EP007334.
PF
     30-DEC-1997;
XX
PR
     31-DEC-1996;
                    96GB-00027114.
XX
PΑ
     (ARME-) ARMEL SA.
XX
PΙ
    Mabrouk K, Sabatier J, Rochat H, Van Rietschoten J;
XX
    WPI; 1998-388041/33.
DR
XX
PT
     New multiply branched peptide construct - comprises core matrix and many
     gp41-derived peptide(s) attached, useful for, e.g. treating human immune
PT
PT
     deficiency virus infection.
XX
PS
     Disclosure; Page 3; 15pp; English.
XX
CC
     The invention relates to multiply branched peptide constructs which
CC
     comprise a core matrix having bonded to it 2-16 peptides each containing
     the present (RQGY) sequence, preceded by 0-4 amino acids and followed by
CC
CC
     2-4 amino acids. The multiply branched peptide constructs are used to
     treat human immune deficiency virus (HIV) infection (they interfere with
CC
CC
     HIV-mediated cell fusion). Since the core matrix is hidden by attached
CC
     peptides, the multiply branched peptide construct is not antigenic. The
CC
     present sequence represents a multiply branched peptide construct
XX
     Sequence 11 AA;
SQ
```

```
Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            7 LKKK 10
Qу
              +111
            7 LKKK 10
Db
RESULT 53
AAW66522
     AAW66522 standard; peptide; 11 AA.
XX
AC
     AAW66522;
XX
DT
     25-NOV-1998
                 (first entry)
XX
DE
     Amphiphilic peptide.
XX
KW
     magainin; analogue; antimicrobial; antitumour; wound healing; CPF;
KW
     amphiphilic; XPF peptide.
XX
OS
     Synthetic.
XX
     US5792831-A.
PN
XX
PD
     11-AUG-1998.
XX
     17-NOV-1994;
                    94US-00343882.
PF
ХX
                    90US-00476629.
PR
     08-FEB-1990;
PR
     14-MAY-1990;
                    90US-00522688.
                    92US-00874685.
PR
     28-APR-1992;
PR
     05-OCT-1993;
                    93US-00133740.
XX
     (MAGA-) MAGAININ PHARM INC.
PΑ
XX
PΙ
    Maloy WL;
XX
DR
     WPI; 1998-456190/39.
XX
PT
     Magainin peptide analogues - useful as antimicrobial or antitumour
PT
     agents, etc.
XX
PS
     Disclosure; Col 20; 25pp; English.
XX
CC
     The invention relates to analogues of a magainin I or II, D-form
CC
     analogues, deletion analogues or related peptides. It also relates to
CC
     basic polypeptides having at least 16 amino acids, including at least 8
CC
     hydrophobic amino acids and at least 8 hydrophilic amino acids. The
CC
     peptides may be used as antimicrobial agents, antiviral agents,
CC
     antibiotics, antitumour agents, antiparasitic agents, spermicides,
CC
     preservatives or sterilants, or agents for promoting wound healing. The
CC
     present sequence represents a specific example of a peptide disclosed in
CC
     the specification
XX
```

```
Sequence 11 AA;
SQ
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.6e+03;
             4: Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            6 KLKK 9
Qу
              ++++
Db
            7 KLKK 10
RESULT 54
AAW66523
     AAW66523 standard; peptide; 11 AA.
XX
AC
     AAW66523;
XX
DT
     25-NOV-1998 (first entry)
XX
DΕ
     Amphiphilic peptide.
XX
KW
     magainin; analogue; antimicrobial; antitumour; wound healing; CPF;
KW
     amphiphilic; XPF peptide.
XX
OS
     Synthetic.
XX
PN
     US5792831-A.
XX
PD
     11-AUG-1998.
XX
                    94US-00343882.
PF
     17-NOV-1994;
XX
PR
     08-FEB-1990;
                    90US-00476629.
                    90US-00522688.
     14-MAY-1990;
PR
     28-APR-1992;
                    92US-00874685.
PR
PR
     05-OCT-1993;
                    93US-00133740.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Maloy WL;
XX
DR
     WPI: 1998-456190/39.
XX
PT
     Magainin peptide analogues - useful as antimicrobial or antitumour
PT
     agents, etc.
XX
PS
     Disclosure; Col 20; 25pp; English.
XX
CC
     The invention relates to analogues of a magainin I or II, D-form
CC
     analogues, deletion analogues or related peptides. It also relates to
     basic polypeptides having at least 16 amino acids, including at least 8
CC
CC
     hydrophobic amino acids and at least 8 hydrophilic amino acids. The
CC
     peptides may be used as antimicrobial agents, antiviral agents,
CC
     antibiotics, antitumour agents, antiparasitic agents, spermicides,
CC
     preservatives or sterilants, or agents for promoting wound healing. The
CC
     present sequence represents a specific example of a peptide disclosed in
```

CC

the specification

```
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.6e+03;
  Matches
            4; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            6 KLKK 9
QУ
              \perp
            7 KLKK 10
Db
RESULT 55
AAW66297
    AAW66297 standard; peptide; 11 AA.
XX
AC
    AAW66297;
XX
DT
     25-NOV-1998 (first entry)
XX
    Amphiphilic peptide containing D-amino acids.
DΕ
XX
    magainin; analogue; antimicrobial; antitumour; wound healing.
KW
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
    Misc-difference 1. .14
FT
FT
                     /note= "each amino acid residue which is not a Gly
                     residue is a D-amino acid residue"
\Gamma T
XX
    US5792831-A.
PN
XX
PD
     11-AUG-1998.
XX
PF
     17-NOV-1994;
                    94US-00343882.
XX
                    90US-00476629.
PR
     08-FEB-1990;
     14-MAY-1990;
                    90US-00522688.
PR
PR
     28-APR-1992;
                    92US-00874685.
PR
     05-OCT-1993;
                    93US-00133740.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PI
    Maloy WL;
XX
DR
    WPI; 1998-456190/39.
XX
PT
    Magainin peptide analogues - useful as antimicrobial or antitumour
PT
     agents, etc.
XX
PS
     Example 1; Col 43-44; 25pp; English.
XX
     The invention relates to analogues of a magainin I peptide of formula:
CC
     GIGKFLHSAGKFGKAFVGEIMKS or a magainin II peptide of formula:
CC
     GIGKFLHSAKKFGKAFVGEIMNS, where all amino acids other than Gly are D-amino
CC
CC
     acids and the analogues are in carboxy- or amide-terminated form.
```

```
Magainin I or II analogues or related peptides may be used as
CC
CC
     antimicrobial agents, antiviral agents, antibiotics, antitumour agents,
CC
     antiparasitic agents, spermicides, preservatives or sterilants, or agents
     for promoting wound healing. The present sequence is shown in the
CC
CC
     specification
XX
     Sequence 11 AA;
SQ
                          36.4%; Score 4; DB 2; Length 11;
 Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
             4; Conservative 0; Mismatches
                                                                              0;
 Matches
                                                   0; Indels
                                                                  0; Gaps
            6 KLKK 9
Qу
              +111
Db
            7 KLKK 10
RESULT 56
AAW66482
     AAW66482 standard; peptide; 11 AA.
XX
AC
    AAW66482;
XX
DT
     25-NOV-1998 (first entry)
XX
ÐΕ
     Amphiphilic peptide.
XX
     magainin; analogue; antimicrobial; antitumour; wound healing; CPF;
KW
KW
     amphiphilic; XPF peptide.
XX
OS
     Synthetic.
XX
PN
     US5792831-A.
XX
     11-AUG-1998.
PD
XX
PF
                    94US-00343882.
     17-NOV-1994;
XX
                    90US-00476629.
PR
     08-FEB-1990;
                    90US-00522688.
PR
     14-MAY-1990;
                    92US-00874685.
PR
     28-APR-1992;
PR
     05-OCT-1993;
                    93US-00133740.
XX
     (MAGA-) MAGAININ PHARM INC.
PA
XX
    Maloy WL;
PΙ
XX
DR
     WPI; 1998-456190/39.
XX
PT
     Magainin peptide analogues - useful as antimicrobial or antitumour
PT
     agents, etc.
XX
     Disclosure; Col 17; 25pp; English.
PS
XX
CC
     The invention relates to analogues of a magainin I or II, D-form
CC
     analogues, deletion analogues or related peptides. It also relates to
     basic polypeptides having at least 16 amino acids, including at least 8
CC
```

```
peptides may be used as antimicrobial agents, antiviral agents,
CC
     antibiotics, antitumour agents, antiparasitic agents, spermicides,
CC
     preservatives or sterilants, or agents for promoting wound healing. The
CC
     present sequence represents a specific example of a peptide disclosed in
CC
CC
     the specification
XX
     Sequence 11 AA;
SQ
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
                                0; Mismatches
                                                   0; Indels
  Matches
             4; Conservative
                                                                  0; Gaps
                                                                              0;
            6 KLKK 9
Qу
              1111
            3 KLKK 6
Db
RESULT 57
AAW75190
     AAW75190 standard; protein; 11 AA.
ID
XX
AC
     AAW75190;
XX
DΤ
     25-MAR-2003
                  (revised)
DT
     28-JAN-1999
                 (first entry)
XX
     Fragment of human secreted protein encoded by gene 56.
DE
XX
     Human; secreted protein; fusion protein; gene therapy; protein therapy;
KW
     diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia;
KW
     developmental abnormality; foetal deficiency; blood; allergy; renal;
KW
KW
     immune system; asthma; lymphocytic disease; brain; hepatic; lymphoma;
KW
     inflammation; ischaemic shock; Alzheimer's disease; restenosis; AIDS;
     cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus;
KW
     osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion;
KW
     endocrine; metabolism; regulation; malabsorption; gastritis; neoplasm.
KW
XX
OS
     Homo sapiens.
XX
PN
     WO9839446-A2.
XX
     11-SEP-1998.
PD
XX
PF
     06-MAR-1998;
                    98WO-US004482.
XX
                    97US-0038621P.
PR
     07-MAR-1997;
PR
     07-MAR-1997;
                    97US-0040161P.
PR
                    97US-0040162P.
     07-MAR-1997;
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                    97US-0040163P.
PŘ
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                    97US-0040333P.
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                    97US-0040334P.
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                    97US-0040626P.
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                    97US-0043311P.
PR
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     11-APR-1997;
₽R
     11-APR-1997;
                    97US-0043313P.
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hydrophobic amino acids and at least 8 hydrophilic amino acids. The

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11-APR-1997;
                      97US-0043314P.
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PR
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     23-MAY-1997;
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     23-MAY-1997;
                      97US-0047594P.
PR
                      97us-0047595P.
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PR
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                      97US-0047599P.
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PR
     23-MAY-1997;
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PR
     06-JUN-1997;
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₽R
     22-AUG-1997;
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PR
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                      97US-0056636P.
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     22-AUG-1997;
                      97US-0056637P.
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     22-AUG-1997;
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                      97US-0056845P.
     22-AUG-1997;
PR
PR
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                      97US-0056862P.
     22-AUG-1997;
                      97US-0056864P.
PR
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22-AUG-1997;
                     97US-0056872P.
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PR
     22-AUG-1997;
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PR
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                     97US-0056875P.
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     22-AUG-1997;
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     22-AUG-1997;
                     97US-0056877P.
PR
     22-AUG-1997;
                     97US-0056878P.
PR
PR
     22-AUG-1997;
                     97US-0056879P.
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     22-AUG-1997;
                     97US-0056880P.
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     22-AUG-1997;
                     97US-0056881P.
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     22-AUG-1997;
                     97US-0056882P.
PR
     22-AUG-1997;
                     97US-0056884P.
PR
     22-AUG-1997;
                     97US-0056886P.
PR
     22-AUG-1997;
                     97US-0056887P.
PR
     22-AUG-1997;
                     97US-0056888P.
PR
     22-AUG-1997;
                     97US-0056889P.
PR
     22-AUG-1997;
                     97US-0056892P.
     22-AUG-1997;
                     97US-0056893P.
PR
                     97US-0056894P.
PR
     22-AUG-1997;
PR
     22-AUG-1997;
                     97US-0056903P.
                     97US-0056908P.
PR
     22-AUG-1997;
PR
     22-AUG-1997;
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PR
                     97US-0056910P.
     22-AUG-1997;
PR
                     97US-0056911P.
     22-AUG-1997;
PR
     05-SEP-1997;
                     97US-0057650P.
PR
     05-SEP-1997;
                     97US-0057761P.
XX
     (HUMA-) HUMAN GENOME SCI INC.
PΑ
```

Ruben SM, Rosen CA, Fischer CL, Soppet DR, Carter KC; Bednarik DP, Endress GA, Yu G, Ni J, Feng P, Young PE, Greene JM; Ferrie AM, Duan R, Hu J, Florence KA, Olsen HS, Ebner R, Brewer LA; Moore PA, Shi Y, Lafleur DW, Li Y, Zeng Z, Kyaw H;

WPI; 1998-609887/51.

XX PI

PI PI

PI

XX DR

XX

PT

PT

PT XX

PS XX CC

CC

CC CC

CC

CC

CC CC

CC

CC

CC

CC CC

CC

CC

XX

New isolated human genes and the secreted polypeptides they encode - useful for diagnosis and treatment of e.g. cancers, neurological disorders, immune diseases, inflammation or blood disorders.

Disclosure; Page 51; 447pp; English.

This sequence represents a fragment of a secreted human protein encoded by the nucleic acid molecule designated Gene 56 (AAV34209). The gene can be used to generate fusion proteins by linking to the gene to a human immunoglobulin Fc portion (e.g. AAV34145) for increasing the stability of the fused protein as compared to the human protein only. The invention relates to 70 novel genes and their fragments (nucleic acid sequences: AAV34154-V34276; amino acid sequences AAW75057-W75179) which are useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. Also, pathological conditions can be diagnosed by determining the amount of the new polypeptides in a sample or by determining the presence of mutations in the new polynucleotides. Specific uses are described for each of the 70 polynucleotides, based on which tissues they are most highly expressed in (see AAV34154 for described uses). (Updated on 25-MAR-2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PF field.)

New peptides are provided which are based on Domain III (amino acids 142-169) of human bactericidal/permeability-increasing protein (BPI). The peptides all have a C-terminal amide. More particularly, the Claims relate to: (1) a peptide that has an amino acid sequence of human BPI from position 148 to position 161 (KSKVGWLIQLFHKK) and variants of the sequence having antifungal activity; and (2) an antifungal peptide having 6-14 amino acids comprising (a) a core sequence selected from LIQL, IQLF, WLIQL, LIQLF and WLIQLF and (b) one or more cationic amino acids selected from K, R, H, Orn (ornithine) and Dab (diaminobutyric acid) at the N and/or C terminus of the core sequence. The new peptides are used for killing or inhibiting replication of fungi in vitro; and for treating fungal infections in vivo, in particular infections of Candida,

CC

CC

CC

CC

CC

CC

```
Aspergillus or Cryptococcus spp., especially C. albicans, C. krusei, C.
CC
CC
     lusitaniae, C. parapsilosis or C. tropicalis. The peptide can be
CC
     administered topically, intravenously, orally or as an aerosol,
     optionally together with a non-peptide antifungal agent
CC
XX
     Sequence 11 AA;
SO
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
                                0; Mismatches
  Matches
             4; Conservative
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            7 LKKK 10
              \perp
Db
            8 LKKK 11
RESULT 59
AAY10749
ID
     AAY10749 standard; peptide; 11 AA.
XX
AC
     AAY10749;
XX
DT
     11-MAY-1999 (first entry)
XX
     Peptide used to make biologically active peptides.
DE
XX
     Sepsis; septic shock; Pseudomonas aeruginosa; cystic fibrosis;
KW
     antimicrobial; antiviral; antibacterial; antifungal; antitumour;
KW
     antiparasitic; spermicide; preservative; sterilant; disinfectant;
KW
KW
     wound healing; burn; skin infection; eye infection; solid tumour;
KW
     leukaemia; non-small cell lung cancer; adenocarcinoma; plant infection;
     periodontal disease; plaque; gingivitis; caries; Streptococcus mutans.
KW
XX
OS
     Synthetic.
XX
PN
     WO9903488-A2.
XX
PD
     28-JAN-1999.
XX
PF
     15-JUL-1998;
                    98WO-US014610.
XX
     15-JUL-1997;
                    97US-00893006.
PR
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Kari UP, Williams TJ, Mclane M;
XX
     WPI; 1999-131859/11.
DR
XX
     Treating sepsis or septic shock with N-modified ion-channel forming
PT
PT
     peptide - or its methane sulphonate derivative of reduced toxicity, also
PT
     generally useful as antimicrobial and antitumour agents.
XX
PS
     Example 1; Page 185; 202pp; English.
XX
CC
     AAY10640-795 represent peptides used in the production of biologically
CC
     active peptides with reduced toxicity. The biologically active peptides
```

```
N(W)-X, where X = \text{biologically active}, amphipathic, ion-channel forming
CC
     peptide or protein; T = lipophilic group; and W = hydrogen or T. The
CC
     peptides are particularly used to treat infections by Pseudomonas
CC
     aeruginosa in patients with cystic fibrosis, but more generally as anti-
CC
     microbial, antiviral, antibacterial, antifungal, antitumour or
CC
     antiparasitic agents, and also as spermicides, e.g. as preservatives,
CC
     sterilants, and disinfectants in human and veterinary medicine. They can
CC
     be used to stimulate wound healing, treat burns and/or skin and burn
CC
     infections, eye infections, solid tumours or leukaemia (particularly non-
CC
     small cell lung cancer and adenocarcinoma, including those resistant to
CC
     other antitumour agents), and also for treatment of infections in plants,
CC
     and, when formulated in oral hygiene formulations, for treating or
CC
     preventing periodontal disease, plaque, gingivitis and/or caries
CC
     (specifically by action on Streptococcus mutans)
CC
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
                              0; Mismatches
  Matches
             4; Conservative
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            6 KLKK 9
Qу
              \perp
            7 KLKK 10
Db
RESULT 60
AAY10769
    AAY10769 standard; peptide; 11 AA.
XX
AC
    AAY10769;
XX
DT
     11-MAY-1999
                  (first entry)
XX
DΕ
     Peptide used to make biologically active peptides.
XX
KW
     Sepsis; septic shock; Pseudomonas aeruginosa; cystic fibrosis;
     antimicrobial; antiviral; antibacterial; antifungal; antitumour;
KW
     antiparasitic; spermicide; preservative; sterilant; disinfectant;
KW
     wound healing; burn; skin infection; eye infection; solid tumour;
KW
     leukaemia; non-small cell lung cancer; adenocarcinoma; plant infection;
KW
KW
    periodontal disease; plaque; gingivitis; caries; Streptococcus mutans.
XX
OS
     Synthetic.
XX
PN
     WO9903488-A2.
XX
PD
     28-JAN-1999.
XX
PF
                    98WO-US014610.
     15-JUL-1998;
XX
PR
     15-JUL-1997;
                    97US-00893006.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Kari UP, Williams TJ, Mclane M;
```

are used to treat sepsis or septic shock, and comprise the formula: T-

```
XX
DR
     WPI; 1999-131859/11.
XX
     Treating sepsis or septic shock with N-modified ion-channel forming
PT
     peptide - or its methane sulphonate derivative of reduced toxicity, also
PT
     generally useful as antimicrobial and antitumour agents.
PT
XX
     Example 1; Page 192; 202pp; English.
PS
XX
CC
     AAY10640-795 represent peptides used in the production of biologically
     active peptides with reduced toxicity. The biologically active peptides
CC
     are used to treat sepsis or septic shock, and comprise the formula: T-
CC
     N(W)-X, where X = biologically active, amphipathic, ion-channel forming
CC
     peptide or protein; T = lipophilic group; and W = hydrogen or T. The
CC
     peptides are particularly used to treat infections by Pseudomonas
CC
CC
     aeruginosa in patients with cystic fibrosis, but more generally as anti-
CC
     microbial, antiviral, antibacterial, antifungal, antitumour or
CC
     antiparasitic agents, and also as spermicides, e.g. as preservatives,
CC
     sterilants, and disinfectants in human and veterinary medicine. They can
     be used to stimulate wound healing, treat burns and/or skin and burn
CC
     infections, eye infections, solid tumours or leukaemia (particularly non-
CC
CC
     small cell lung cancer and adenocarcinoma, including those resistant to
     other antitumour agents), and also for treatment of infections in plants,
CC
     and, when formulated in oral hygiene formulations, for treating or
CC
CC
     preventing periodontal disease, plaque, gingivitis and/or caries
CC
     (specifically by action on Streptococcus mutans)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
                              0; Mismatches
                                                                 0; Gaps
                                                                              0;
            4; Conservative
                                                   0; Indels
  Matches
            6 KLKK 9
Qу
              7 KLKK 10
Db
RESULT 61
AAY10785
     AAY10785 standard; peptide; 11 AA.
XX
AC
     AAY10785;
XX
DT
     11-MAY-1999 (first entry)
XX
DE
     Peptide used to make biologically active peptides.
XX
KW
     Sepsis; septic shock; Pseudomonas aeruginosa; cystic fibrosis;
     antimicrobial; antiviral; antibacterial; antifungal; antitumour;
KW
     antiparasitic; spermicide; preservative; sterilant; disinfectant;
KW
     wound healing; burn; skin infection; eye infection; solid tumour;
KW
     leukaemia; non-small cell lung cancer; adenocarcinoma; plant infection;
KW
     periodontal disease; plaque; gingivitis; caries; Streptococcus mutans.
KW
XX
OS
     Synthetic.
XX
```

```
WO9903488-A2.
PN
XX
PD
     28-JAN-1999.
XX
PF
     15-JUL-1998;
                    98WO-US014610.
XX
     15-JUL-1997;
                    97US-00893006.
PR
XX
     (MAGA-) MAGAININ PHARM INC.
PΑ
XX
     Kari UP, Williams TJ, Mclane M;
PI
XX
DR
     WPI: 1999-131859/11.
XX
     Treating sepsis or septic shock with N-modified ion-channel forming
PT
     peptide - or its methane sulphonate derivative of reduced toxicity, also
PT
PT
     generally useful as antimicrobial and antitumour agents.
XX
PS
     Example 1; Page 198; 202pp; English.
XX
CC
     AAY10640-795 represent peptides used in the production of biologically
CC
     active peptides with reduced toxicity. The biologically active peptides
     are used to treat sepsis or septic shock, and comprise the formula: T-
CC
     N(W)-X, where X = biologically active, amphipathic, ion-channel forming
CC
CC
     peptide or protein; T = lipophilic group; and W = hydrogen or T. The
     peptides are particularly used to treat infections by Pseudomonas
CC
     aeruginosa in patients with cystic fibrosis, but more generally as anti-
CC
     microbial, antiviral, antibacterial, antifungal, antitumour or
CC
CC
     antiparasitic agents, and also as spermicides, e.g. as preservatives,
     sterilants, and disinfectants in human and veterinary medicine. They can
CC
     be used to stimulate wound healing, treat burns and/or skin and burn
CC
     infections, eye infections, solid tumours or leukaemia (particularly non-
СC
     small cell lung cancer and adenocarcinoma, including those resistant to
CC
     other antitumour agents), and also for treatment of infections in plants,
CC
CC
     and, when formulated in oral hygiene formulations, for treating or
CC
     preventing periodontal disease, plaque, gingivitis and/or caries
CC
     (specifically by action on Streptococcus mutans)
XX
SO
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
                                                                  0; Gaps
                                                                              0;
  Matches
             4; Conservative
                              0; Mismatches
                                                   0; Indels
Qy
            6 KLKK 9
              \pm 1111
            7 KLKK 10
Db
RESULT 62
AAY10780
     AAY10780 standard; peptide; 11 AA.
ID
XX
AC
     AAY10780;
XX
DT
     11-MAY-1999 (first entry)
XX
```

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Peptide used to make biologically active peptides.
DE
XX
KW
     Sepsis; septic shock; Pseudomonas aeruginosa; cystic fibrosis;
     antimicrobial; antiviral; antibacterial; antifungal; antitumour;
KW
     antiparasitic; spermicide; preservative; sterilant; disinfectant;
KW
     wound healing; burn; skin infection; eye infection; solid tumour;
KW
     leukaemia; non-small cell lung cancer; adenocarcinoma; plant infection;
KW
     periodontal disease; plaque; gingivitis; caries; Streptococcus mutans.
KW
XX
OS
     Synthetic.
XX
FH
     Kev
                     Location/Qualifiers
     Modified-site
FT
                     /note= "ornithine"
FT
XX
PN
     WO9903488-A2.
XX
     28-JAN-1999.
PD
XX
PF
     15-JUL-1998;
                    98WO-US014610.
XX
PR
     15-JUL-1997;
                    97US-00893006.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Kari UP, Williams TJ, Mclane M;
XX
DR
     WPI; 1999-131859/11.
XX
PT
     Treating sepsis or septic shock with N-modified ion-channel forming
PT
     peptide - or its methane sulphonate derivative of reduced toxicity, also
     generally useful as antimicrobial and antitumour agents.
PT
XX
PS
     Example 1; Page 196; 202pp; English.
XX
CC
     AAY10640-795 represent peptides used in the production of biologically
     active peptides with reduced toxicity. The biologically active peptides
CC
CC
     are used to treat sepsis or septic shock, and comprise the formula: T-
     N(W)-X, where X = biologically active, amphipathic, ion-channel forming
CC
CC
     peptide or protein; T = lipophilic group; and W = hydrogen or T. The
CC
     peptides are particularly used to treat infections by Pseudomonas
CC
     aeruginosa in patients with cystic fibrosis, but more generally as anti-
CC
     microbial, antiviral, antibacterial, antifungal, antitumour or
CC
     antiparasitic agents, and also as spermicides, e.g. as preservatives,
CC
     sterilants, and disinfectants in human and veterinary medicine. They can
CC
     be used to stimulate wound healing, treat burns and/or skin and burn
CC
     infections, eye infections, solid tumours or leukaemia (particularly non-
CC
     small cell lung cancer and adenocarcinoma, including those resistant to
     other antitumour agents), and also for treatment of infections in plants,
CC
CC
     and, when formulated in oral hygiene formulations, for treating or
CC
     preventing periodontal disease, plaque, gingivitis and/or caries
CC
     (specifically by action on Streptococcus mutans)
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
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Best Local Similarity 100.0%; Pred. No. 1.6e+03;

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Matches
             4; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
            6 KLKK 9
Qу
              1111
            7 KLKK 10
Db
RESULT 63
AAY10750
     AAY10750 standard; peptide; 11 AA.
ID
XX
AC
     AAY10750;
XX
DT
     11-MAY-1999 (first entry)
XX
DE
     Peptide used to make biologically active peptides.
XX
KW
     Sepsis; septic shock; Pseudomonas aeruginosa; cystic fibrosis;
     antimicrobial; antiviral; antibacterial; antifungal; antitumour;
KW
KW
     antiparasitic; spermicide; preservative; sterilant; disinfectant;
     wound healing; burn; skin infection; eye infection; solid tumour;
KW
     leukaemia; non-small cell lung cancer; adenocarcinoma; plant infection;
KW
KW
     periodontal disease; plaque; gingivitis; caries; Streptococcus mutans.
XX
OS
     Synthetic.
XX
PN
    WO9903488-A2.
XX
     28-JAN-1999.
PD
XX
                    98WO-US014610.
PF
     15-JUL-1998;
XX
PR
     15-JUL-1997;
                    97US-00893006.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Kari UP, Williams TJ, Mclane M;
XX
DR
     WPI; 1999-131859/11.
XX
     Treating sepsis or septic shock with N-modified ion-channel forming
PT
PT
     peptide - or its methane sulphonate derivative of reduced toxicity, also
PT
     generally useful as antimicrobial and antitumour agents.
XX
PS
     Example 1; Page 186; 202pp; English.
XX
CC
    AAY10640-795 represent peptides used in the production of biologically
     active peptides with reduced toxicity. The biologically active peptides
CC
     are used to treat sepsis or septic shock, and comprise the formula: T-
CC
CC
     N(W)-X, where X = biologically active, amphipathic, ion-channel forming
CC
     peptide or protein; T = lipophilic group; and W = hydrogen or T. The
CC
     peptides are particularly used to treat infections by Pseudomonas
CC
     aeruginosa in patients with cystic fibrosis, but more generally as anti-
CC
     microbial, antiviral, antibacterial, antifungal, antitumour or
     antiparasitic agents, and also as spermicides, e.g. as preservatives,
CC
CC
     sterilants, and disinfectants in human and veterinary medicine. They can
CC
    be used to stimulate wound healing, treat burns and/or skin and burn
```

0;

```
infections, eye infections, solid tumours or leukaemia (particularly non-
CC
     small cell lung cancer and adenocarcinoma, including those resistant to
CC
     other antitumour agents), and also for treatment of infections in plants,
CC
     and, when formulated in oral hygiene formulations, for treating or
CC
     preventing periodontal disease, plaque, gingivitis and/or caries
CC
     (specifically by action on Streptococcus mutans)
CC
XX
     Sequence 11 AA;
SQ
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
            4; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            6 KT/KK 9
Qу
              +111
            7 KLKK 10
Db
RESULT 64
AAY10766
     AAY10766 standard; peptide; 11 AA.
ΙD
XX
AC
     AAY10766;
XX
DT
     11-MAY-1999 (first entry)
XX
     Peptide used to make biologically active peptides.
DE
XX
KW
     Sepsis; septic shock; Pseudomonas aeruginosa; cystic fibrosis;
     antimicrobial; antiviral; antibacterial; antifungal; antitumour;
KW
KW
     antiparasitic; spermicide; preservative; sterilant; disinfectant;
     wound healing; burn; skin infection; eye infection; solid tumour;
KW
KW
     leukaemia; non-small cell lung cancer; adenocarcinoma; plant infection;
KW
     periodontal disease; plaque; gingivitis; caries; Streptococcus mutans.
XX
OS
     Synthetic.
XX
PN
     WO9903488-A2.
XX
PD
     28-JAN-1999.
XX
PF
     15-JUL-1998;
                    98WO-US014610.
XX
PR
     15-JUL-1997;
                    97US-00893006.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Kari UP, Williams TJ, Mclane M;
XX
DR
     WPI; 1999-131859/11.
XX
PT
     Treating sepsis or septic shock with N-modified ion-channel forming
PT
     peptide - or its methane sulphonate derivative of reduced toxicity, also
PT
     generally useful as antimicrobial and antitumour agents.
XX
PS
     Example 1; Page 191; 202pp; English.
XX
```

```
CC
     active peptides with reduced toxicity. The biologically active peptides
CC
     are used to treat sepsis or septic shock, and comprise the formula: T-
     N(W)-X, where X = biologically active, amphipathic, ion-channel forming
CC
CC
     peptide or protein; T = lipophilic group; and W = hydrogen or T. The
     peptides are particularly used to treat infections by Pseudomonas
CC
     aeruginosa in patients with cystic fibrosis, but more generally as anti-
CC
     microbial, antiviral, antibacterial, antifungal, antitumour or
CC
CC
     antiparasitic agents, and also as spermicides, e.g. as preservatives,
     sterilants, and disinfectants in human and veterinary medicine. They can
CC
     be used to stimulate wound healing, treat burns and/or skin and burn
CC
     infections, eye infections, solid tumours or leukaemia (particularly non-
CC
     small cell lung cancer and adenocarcinoma, including those resistant to
CC
     other antitumour agents), and also for treatment of infections in plants,
CC
     and, when formulated in oral hygiene formulations, for treating or
CC
CC
     preventing periodontal disease, plaque, qinqivitis and/or caries
CC
     (specifically by action on Streptococcus mutans)
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
                                                                              0;
             4; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0;
  Matches
                                                                     Gaps
            6 KLKK 9
Qу
              1111
            7 KLKK 10
Db
RESULT 65
AAY10733
    AAY10733 standard; peptide; 11 AA.
XX
AC
     AAY10733;
XX
     11-MAY-1999 (first entry)
DT
XX
DΕ
     Peptide used to make biologically active peptides.
XX
KW
     Sepsis; septic shock; Pseudomonas aeruginosa; cystic fibrosis;
     antimicrobial; antiviral; antibacterial; antifungal; antitumour;
KW
     antiparasitic; spermicide; preservative; sterilant; disinfectant;
KW
     wound healing; burn; skin infection; eye infection; solid tumour;
KW
     leukaemia; non-small cell lung cancer; adenocarcinoma; plant infection;
KW
KW
     periodontal disease; plaque; ginqivitis; caries; Streptococcus mutans.
XX
OS
     Synthetic.
XX
PN
     WO9903488-A2.
XX
PD
     28-JAN-1999.
XX
PF
                    98WO-US014610.
     15-JUL-1998;
XX
PR
     15-JUL-1997;
                    97US-00893006.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
```

AAY10640-795 represent peptides used in the production of biologically

CC

```
XX
PI
     Kari UP, Williams TJ,
                            Mclane M;
XX
     WPI; 1999-131859/11.
DR
XX
PT
     Treating sepsis or septic shock with N-modified ion-channel forming
PT
     peptide - or its methane sulphonate derivative of reduced toxicity, also
     generally useful as antimicrobial and antitumour agents.
PT
XX
     Disclosure; Page 180; 202pp; English.
PS
XX
     AAY10640-795 represent peptides used in the production of biologically
CC
     active peptides with reduced toxicity. The biologically active peptides
CC
     are used to treat sepsis or septic shock, and comprise the formula: T-
CC
     N(W)-X, where X = biologically active, amphipathic, ion-channel forming
CC
     peptide or protein; T = lipophilic group; and W = hydrogen or T. The
CC
CC
     peptides are particularly used to treat infections by Pseudomonas
CC
     aeruginosa in patients with cystic fibrosis, but more generally as anti-
CC
     microbial, antiviral, antibacterial, antifungal, antitumour or
CC
     antiparasitic agents, and also as spermicides, e.g. as preservatives,
CC
     sterilants, and disinfectants in human and veterinary medicine. They can
CC
     be used to stimulate wound healing, treat burns and/or skin and burn
     infections, eye infections, solid tumours or leukaemia (particularly non-
CC
CC
     small cell lung cancer and adenocarcinoma, including those resistant to
CC
     other antitumour agents), and also for treatment of infections in plants,
     and, when formulated in oral hygiene formulations, for treating or
CC
CC
     preventing periodontal disease, plaque, gingivitis and/or caries
CC
     (specifically by action on Streptococcus mutans)
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
 Query Match
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
                                0; Mismatches
                                                   0; Indels
                                                                             0;
 Matches
             4; Conservative
                                                                     Gaps
            6 KLKK 9
Qу
              3 KLKK 6
Db
RESULT 66
     AAY10751 standard; peptide; 11 AA.
XX
AC
     AAY10751;
XX
DT
     11-MAY-1999 (first entry)
XX
DE
     Peptide used to make biologically active peptides.
XX
KW
     Sepsis; septic shock; Pseudomonas aeruginosa; cystic fibrosis;
KW
     antimicrobial; antiviral; antibacterial; antifungal; antitumour;
     antiparasitic; spermicide; preservative; sterilant; disinfectant;
KW
KW
     wound healing; burn; skin infection; eye infection; solid tumour;
KW
     leukaemia; non-small cell lung cancer; adenocarcinoma; plant infection;
KW
     periodontal disease; plaque; gingivitis; caries; Streptococcus mutans.
XX
```

```
Synthetic.
OS
XX
     WO9903488-A2.
ΡN
XX
PD
     28-JAN-1999.
XX
     15-JUL-1998;
                    98WO-US014610.
PF
XX
     15-JUL-1997;
                    97US-00893006.
PR
XX
     (MAGA-) MAGAININ PHARM INC.
PΑ
XX
ΡI
     Kari UP, Williams TJ, Mclane M;
XX
     WPI; 1999-131859/11.
DR
XX
PT
     Treating sepsis or septic shock with N-modified ion-channel forming
    peptide - or its methane sulphonate derivative of reduced toxicity, also
PT
PT
     generally useful as antimicrobial and antitumour agents.
XX
PS
     Disclosure; Page 186; 202pp; English.
XX
     AAY10640-795 represent peptides used in the production of biologically
CC
     active peptides with reduced toxicity. The biologically active peptides
CC
     are used to treat sepsis or septic shock, and comprise the formula: T-
CC
     N(W)-X, where X = biologically active, amphipathic, ion-channel forming
CC
     peptide or protein; T = lipophilic group; and W = hydrogen or T. The
CC
     peptides are particularly used to treat infections by Pseudomonas
CC
     aeruginosa in patients with cystic fibrosis, but more generally as anti-
CC
     microbial, antiviral, antibacterial, antifungal, antitumour or
CC
     antiparasitic agents, and also as spermicides, e.g. as preservatives,
CC
     sterilants, and disinfectants in human and veterinary medicine. They can
CC
     be used to stimulate wound healing, treat burns and/or skin and burn
CC
CC
     infections, eye infections, solid tumours or leukaemia (particularly non-
     small cell lung cancer and adenocarcinoma, including those resistant to
CC
     other antitumour agents), and also for treatment of infections in plants,
CC
     and, when formulated in oral hygiene formulations, for treating or
CC
CC
     preventing periodontal disease, plaque, gingivitis and/or caries
     (specifically by action on Streptococcus mutans)
CC
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
            4; Conservative 0; Mismatches
                                                                              0;
 Matches
                                                  0; Indels
                                                                 0; Gaps
            6 KLKK 9
Qу
              1111
            3 KLKK 6
Db
RESULT 67
AAY10767
     AAY10767 standard; peptide; 11 AA.
ΙD
XX
AC
     AAY10767;
XX
```

```
DT
     11-MAY-1999
                 (first entry)
XX
DE
     Peptide used to make biologically active peptides.
XX
KW
     Sepsis; septic shock; Pseudomonas aeruginosa; cystic fibrosis;
     antimicrobial; antiviral; antibacterial; antifungal; antitumour;
KW
     antiparasitic; spermicide; preservative; sterilant; disinfectant;
KW
     wound healing; burn; skin infection; eye infection; solid tumour;
KW
     leukaemia; non-small cell lung cancer; adenocarcinoma; plant infection;
KW
     periodontal disease; plaque; gingivitis; caries; Streptococcus mutans.
KW
XX
OS
     Synthetic.
XX
     WO9903488-A2.
PN
XX
     28-JAN-1999.
PD
XX
PF
     15-JUL-1998;
                    98WO-US014610.
XX
PR
     15-JUL-1997;
                    97US-00893006.
XX
     (MAGA-) MAGAININ PHARM INC.
PA
XX
PI
     Kari UP, Williams TJ, Mclane M;
XX
     WPI; 1999-131859/11.
DR
XX
PΤ
     Treating sepsis or septic shock with N-modified ion-channel forming
     peptide - or its methane sulphonate derivative of reduced toxicity, also
PT
     generally useful as antimicrobial and antitumour agents.
PT
XX
PS
     Example 1; Page 191; 202pp; English.
XX
CC
     AAY10640-795 represent peptides used in the production of biologically
     active peptides with reduced toxicity. The biologically active peptides
CC
     are used to treat sepsis or septic shock, and comprise the formula: T-
CC
     N(W)-X, where X = \text{biologically active}, amphipathic, ion-channel forming
CC
CC
     peptide or protein; T = lipophilic group; and W = hydrogen or T. The
CC
     peptides are particularly used to treat infections by Pseudomonas
CC
     aeruginosa in patients with cystic fibrosis, but more generally as anti-
CC
     microbial, antiviral, antibacterial, antifungal, antitumour or
CC
     antiparasitic agents, and also as spermicides, e.g. as preservatives,
     sterilants, and disinfectants in human and veterinary medicine. They can
CC
     be used to stimulate wound healing, treat burns and/or skin and burn
CC
     infections, eye infections, solid tumours or leukaemia (particularly non-
CC
     small cell lung cancer and adenocarcinoma, including those resistant to
CC
     other antitumour agents), and also for treatment of infections in plants,
CC
CC
     and, when formulated in oral hygiene formulations, for treating or
     preventing periodontal disease, plaque, gingivitis and/or caries
CC
CC
     (specifically by action on Streptococcus mutans)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
                                 0; Mismatches
                                                                  0; Gaps
                                                                              0;
             4; Conservative
                                                   0; Indels
  Matches
```

```
6 KLKK 9
Qy
              7 KLKK 10
Db
RESULT 68
AAB26808
     AAB26808 standard; peptide; 11 AA.
XX
AC
     AAB26808;
XX
DT
     22-JAN-2001 (first entry)
XX
     Phosphoryl group acceptor peptide used in CDK2 assay.
DE
XX
KW
     Pyrrolopyridine derivative; organ transplant rejection; tumour growth;
KW
     alopecia; thrombocytopaenia; leukopaenia; mucocitis; restenosis;
KW
     plantar-palmar syndrome; atherosclerosis; rheumatoid arthritis;
KW
     angiogenesis; cirrhosis; psoriasis; diabetes mellitus; inflammation;
     neurodegenerative disease; hyperproliferative disorder; cdk2;
KW
     Alzheimer's disease; viral; fungal; infection; cyclin-dependent kinase 2.
KW
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
     Kev
FT
     Modified-site
FT
                     /note= "Biotin-aminohexyl-Ala"
XX
ΡN
     WO200055159-A2.
XX
     21-SEP-2000.
PD
XX
     03-MAR-2000; 2000WO-US005583.
PF
XX
PR
     04-MAR-1999;
                    99GB-00004995.
XX
     (GLAX ) GLAXO GROUP LTD.
PA
XX
PΙ
     Harris PA, Kuyper LF, Lackey KE, Veal JM;
XX
     WPI; 2000-594439/56.
DR
XX
PT
     Pyrrolopyridine derivatives which are kinase inhibitors, useful for
PT
     treating e.g. organ transplant rejection, tumors, atherosclerosis and
PT
     rheumatoid arthritis.
XX
PS
     Disclosure; Page 79; 105pp; English.
XX
     This invention relates to Pyrrolopyridine derivatives and their salts,
CC
CC
     esters, amides, carbamates, solvates, polymorphs, hydrates, affinity
CC
     reagents and/or prodrugs. The pyrrolpyridine derivatives exhibit
CC
     immunosuppressive, cytostatic, antianaemic, vasotropic,
CC
     antiarteriosclerotic, antirheumatic, antiarthritic, hepatotropic,
CC
     nephrotropic, antidiabetic, antipsoriatic, neuroprotective,
CC
     ophthalmological, keratolytic, virucide, fungicide, and nootropic
CC
     activity. The derivatives are protein kinase and cyclin-dependent kinase
```

inhibitors. The pyrrolopyridine derivatives are used in the treatment of

CC

```
organ transplant rejection, tumour growth, chemotherapy-induced alopecia,
CC
     chemotherapy-induced thrombocytopaenia, chemotherapy-induced leukopaenia,
CC
     mucocitis, plantar-palmar syndrome, restenosis, atherosclerosis,
CC
     rheumatoid arthritis, angiogenesis, hepatic cirrhosis,
CC
     glomerulonephritis, diabetic nephropathy, malignant nephrosclerosis,
CC
     thrombotic microangiopathy, glomerulopathy, psoriasis, diabetes mellitus,
CC
     inflammation, neurodegenerative disease, macular degeneration, actinic
CC
     keratosis, hyperproliferative disorders, Alzheimer's disease and viral or
CC
CC
     eukaryotic infection (e.g. fungal diseases). The present sequence
     represents a phosphoryl group acceptor peptide used in a cyclin-dependent
CC
     kinase 2 (cdk2) assay, to assess the effectiveness of the inhibitors of
CC
CC
     the invention
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
  Matches
             4; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0:
            8 KKKA 11
Qу
              1111
            8 KKKA 11
Dh
RESULT 69
AAY88559
    AAY88559 standard; peptide; 11 AA.
ID
XX
AC
     AAY88559;
XX
DT
     07-AUG-2000 (first entry)
XX
     NCAM Ig1 binding peptide 114 used as a control peptide.
DE
XX
KW
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve quide; treatment; nervous system.
XX
OS
     Synthetic.
XX
     WO200018801-A2.
PN
XX
PD
     06-APR-2000.
XX
PF
     23-SEP-1999;
                    99WO-DK000500.
XX
     29-SEP-1998;
PR
                    98DK-00001232.
     29-APR-1999;
                    99DK-00000592.
PR
XX
     (RONN/) RONN L C B.
PA
     (BOCK/) BOCK E.
PA
     (HOLM/) HOLM A.
PΑ
     (OLSE/) OLSEN M.
PA
     (OSTE/) OSTERGAARD S.
PA
PA
     (JENS/) JENSEN P H.
```

```
(POUL/) POULSEN F M.
PA
     (SORO/) SOROKA V.
PΑ
     (RALE/) RALETS I.
PΑ
     (BERE/) BEREZIN V.
PA
XX
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PΙ
     Poulsen FM, Soroka V, Ralets I, Berezin V;
PΙ
XX
    WPI; 2000-293111/25.
DR
XX
     Compositions that bind neural cell adhesion molecules useful for treating
PT
     disorders of the nervous system and muscles e.g. Alzheimer's and
PT
     Parkinson's diseases.
PT
XX
PS
     Example 5; Fig 7; 119pp; English.
XX
CC
     Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
    NCAM is found in three forms, two of which are transmembrane forms, while
CC
     the third is attached via a lipid anchor to the cell membrane. All three
CC
     NCAM forms have an extracellular structure consisting five immunoglobulin
CC
     domains (Ig domains). The Ig domains are numbered 1 to 5 from the N-
CC
     terminal. The invention relates to a compound containing a peptide which
CC
     binds to the NCAM Ig1 domain. The compound binds to NCAM-Ig1/Ig2 domains,
CC
     and is capable of stimulating or promoting neurite outgrowth from NCAM
CC
     presenting cells, and is also capable of promoting the proliferation of
CC
     NCAM presenting cells. The present sequence represents a control peptide
CC
     used in the identification of those binding peptides which can be used in
CC
     the compound. The compound may be used in the treatment of normal,
CC
     degenerated or damaged NCAM presenting cells. The compound may in
CC
     particular be used to treat diseases of the central and peripheral
CC
     nervous systems such as post operative nerve damage, traumatic nerve
CC
     damage, impaired myelination of nerve fibres, conditions resulting from a
CC
     stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis,
CC
     nerve degeneration associated with diabetes mellitus, disorders affecting
CC
     the circadian clock or neuro-muscular transmission and schizophrenia.
CC
     Conditions affecting the muscles may also be treated with the compound,
CC
     such as conditions associated with impaired function of neuromuscular
CC
     connections (e.g. genetic or traumatic shock or traumatic atrophic muscle
CC
     disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus
CC
     types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also
CC
     be treated using the compound. The compound is used in a prosthetic nerve
CC
CC
     quide, and also to stimulate the ability to learn, and to stimulate the
CC
     memory of a subject
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.6e+03;
                              0; Mismatches
                                                                 0; Gaps
                                                                             0;
             4; Conservative
                                                   0; Indels
            8 KKKA 11
Qу
```

RESULT 70 AAY67919

Db

8 KKKA 11

```
AAY67919 standard; peptide; 11 AA.
ID
XX
AC
    AAY67919;
XX
DT
     23-MAR-2000 (first entry)
XX
     Cyclin containing kinase substrate peptide SEQ ID NO:75.
DE
XX
     Protein kinase; phosphorylation site; signal transduction.
KW
XX
OS
     Synthetic.
XX
     US6004757-A.
ΡN
XX
PD
     21-DEC-1999.
XX
ΡF
     06-JAN-1995;
                    95US-00369643.
XX
     07-JAN-1994; 94US-00178570.
PR
XX
     (BETH-) BETH ISRAEL HOSPITAL ASSOC.
PA
XX
     Cantley LC, Songyang Z;
PΙ
XX
     WPI; 2000-096301/08.
DR
XX
     Peptide substrate for a kinase, useful for determining substrate
PT
     specificity.
PT
XX
     Example 10; Col 38; 69pp; English.
PS
XX
     The present invention describes a substrate for 1ck comprising a 9 amino
CC
     acid peptide (I). Also described is a method of inhibiting kinase
CC
     activity of 1ck by contacting it with (I) in vitro. The peptide is useful
CC
     for determining substrate specificity of a protein kinase. Information on
CC
     the substrate specificity of protein kinases in signal transduction would
CC
     provide an insight into signal transduction mechanisms and could allow
CC
     for the design of therapeutic agents. The present sequence represents a
CC
     peptide used in the exemplification of the present invention
CC
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 1.6e+03;
  Best Local Similarity
            4; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
  Matches
            8 KKKA 11
Qу
              1111
Db
            8 KKKA 11
RESULT 71
AAY95530
     AAY95530 standard; peptide; 11 AA.
ID
XX
AC
     AAY95530;
XX
```

```
DT
     10-OCT-2000 (first entry)
XX
DE
     Transactivator of transcription (Tat) peptide R52.
XX
     Transactivator of transcription; Tat; HIV; AIDS; Karposi's sarcoma;
KW
     antiviral; virucide; screening; retrovirus; antiretrovirus;
KW
     acetamidino saccharide; quanidino saccharide; aminoqlycoside; antibiotic;
KW
    peptidomimetic.
KW
XX
    Human immunodeficiency virus.
OS
OS
     Synthetic.
XX
    WO200039139-A1.
PN
XX
PD
     06-JUL-2000.
XX
PF
     28-DEC-1999;
                    99WO-IL000704.
XX
     28-DEC-1998;
                    98IL-00127773.
PR
XX
     (YEDA ) YEDA RES & DEV CO LTD.
PΑ
XX
     Lapidot A, Litovchick A, Evdokimov A;
PΙ
XX
     WPI; 2000-465729/40.
DR
XX
     Novel peptidomimetic conjugates of saccharides such as aminoglycoside
PT
     antibiotics with acetamidino and guanidino compounds useful for treating
PT
     HIV-infections, AIDS and AIDS manifestations such as Kaposi's sarcoma.
PT
XX
     Example 10; Page 27; 87pp; English.
PS
XX
     The present sequence is that of the model Tat (transactivator of
CC
     transcription) peptide R52. Interaction of the HIV Tat with the
CC
     transactivation responsive RNA (TAR) region of the HIV long terminal
CC
     repeat regulates viral gene expression, and is an attractive target for
CC
     drug design strategies. The invention is based on the discovery that by
CC
CC
     combining a carbohydrate skeleton, either a mono- or an oligosaccharide
     similar to aminoglycoside antibiotics, with side-chains of variable
CC
     length bearing a quanidine moiety or a chemical group with a similar
CC
     geometry and/or charge properties resembling peptide side chains, a new
CC
     class of peptidomimetic TAR RNA binders is obtained that are anti-HIV
CC
     compounds and suppress viral replication by inhibiting transactivation by
CC
     Tat as well as by blocking viral entry to cells through chemokine
CC
     receptor dependent mechanism. The present Tat peptide and a 31-nucleotide
CC
     TAR RNA fragment (see AAA49983) were used in assays to screen for such
CC
     compounds, which will be useful as antiviral, particularly
CC
CC
     antiretroviral, agents for treatment of HIV infection, AIDS and
     manifestations of AIDS, such as Karposi's sarcoma
CC
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    Anti-fungal peptide XMP.350.
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     Human; BPI; antifungal; polymorphonuclear leukocyte; neutrophil;
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     bactericidal/permeability-increasing protein; bactericidal;
KW
     fungal infection.
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OS
    Homo sapiens.
XX
PN
    US6156730-A.
XX
PD
     05-DEC-2000.
XX
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PF
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     13-JAN-1995;
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PA
     (XOMA ) XOMA CORP.
XX
PI
             Fadem MB,
     Lim E,
                        Little RG;
XX
     WPI; 2001-090160/10.
DR
XX
     Novel anti-fungal peptides derived from domain III of
PT
     bactericidal/permeability-increasing protein useful for killing or
PT
     inhibiting replication of fungi and for treating fungal infections.
PT
XX
PS
     Example 2; Col 185-186; 134pp; English.
XX
     The present invention relates to antifungal peptides (see AAB65301-
CC
     B65550) derived from Domain III (amino acids 142-169) of
CC
CC
     bactericidal/permeability-increasing protein (BPI). The present sequence
     is one such antifungal peptide. BPI is a protein isolated from the
CC
     granules of mammalian polymorphonuclear leukocytes (PMNs or neutrophils).
CC
     BPI has potent bactericidal activity against a broad range of gram-
CC
     negative bacteria. The peptides of the present invention are useful for
CC
     killing or inhibiting replication of fungi, and treating infections
CC
     caused by fungus belonging to Candida, Aspergillus, Cryptococcus species
CC
```

```
CC
     such as C.albicans, C.glabrata, C.krusei, C.lusitaniae, C.parapsilosis
     and C.tropicalis
CC
XX
     Sequence 11 AA;
SQ
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     Thymosin beta family consensus sequence.
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     Thymosin-beta-10-like protein; ephrin type-A receptor 8-like protein;
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     proteoglycan-like protein; fibromodulin; fibronectin; thymic immune cell;
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     spermatogenesis; male infertility; neoplasia; red blood cell; platelet;
KW
     small cell lung cancer; GPI-anchored ephrin-A ligand; prostate cancer;
KW
     neurological disorder; cardiac disorder; vascular disorder; orthopaedic;
KW
     inflammatory disease; rheumatoid arthritis; connective tissue;
KW
     congenital muscular dystrophy; chemotherapy; immunotherapy.
KW
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XX
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                    99US-0159992P.
PR
     18-OCT-1999;
PR
     22-OCT-1999;
                    99US-0160952P.
     12-OCT-2000; 2000US-00159805.
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XX
PA
     (CURA-) CURAGEN CORP.
XX
PΙ
     Prayaga SK, Taupier RJ, Bandaru R;
XX
     WPI; 2001-308489/32.
DR
XX
```

```
New isolated polypeptides, NOV 1-3, having identity to thymosin-beta-10,
PT
     ephrin type-A receptor 8 and proteoglycans, and polynucleotides, useful
PT
PT
     for treating male infertility, neurological or cardiac disease or
     rheumatoid arthritis.
PT
XX
     Disclosure; Page 5; 102pp; English.
PS
XX
     The sequence represents a thymosin beta family consensus sequence. The
CC
     thymosin-beta-10-like protein (NOV1) is a member of the thymosin beta
CC
     family. NOV1, ephrin type-A receptor 8-like protein (NOV2) and
CC
     proteoglycan-like proteins (NOV3) may be used in the diagnosis, treatment
CC
     and prevention of disorders caused by abnormal expression or activity of
CC
     thymosin-beta-10, ephrin type-A receptor 8 and proteoglycans such as
CC
     fibromodulin and fibronectin. The polypeptides of the invention are
CC
     useful in screening for agents that modulate their activity, and in
CC
CC
     determining predispositions to disorders. NOV1 is useful for treating
     conditions involving development, differentiation, and activation of
CC
CC
     thymic immune cells, in pathologies related to spermatogenesis and male
CC
     infertility, diagnosis of neoplasias, in diseases or pathologies of red
     blood cells or platelets, in detection of small cell lung cancer. NOV1
CC
CC
     nucleic acids can be combined in chemo-immunotherapeutical anti-cancer
CC
     treatments. NOV2 is useful for detecting cells expressing GPI-anchored
     ephrin-A ligands, as a marker for prostate cancer, and in treating
CC
     neurological, cardiac and vascular disorders. NOV3 (proteoglycan) nucleic
CC
CC
     acids and proteins are useful for treating orthopaedic disorders and/or
CC
     injuries, and inflammatory diseases of connective tissues e.g. rheumatoid
CC
     arthritis, congenital muscular dystrophies
XX
SQ
     Sequence 11 AA;
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  Query Match
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     15-JUL-2002 (first entry)
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     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
ΚW
ΚW
     vaccine; HIV infection; immunisation; virucide.
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OS
    Human immunodeficiency virus 1.
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     05-OCT-2000; 2000WO-US027766.
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PR
XX
     (EPIM-) EPIMMUNE INC.
PΑ
XX
     Sette A, Sidney J,
                          Southwood S, Livingston BD, Chesnut R;
PΙ
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
PI
XX
     WPI: 2001-354887/37.
DR
XX
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 265; 448pp; English.
XX
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
CC
     additional advantage of an group-based vaccine approach is the ability to
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
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Qу
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DT
     15-JUL-2002 (first entry)
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     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
KW
XX
OS
     Human immunodeficiency virus 1.
XX
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XX
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     05-OCT-2000; 2000WO-US027766.
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PΑ
     (EPIM-) EPIMMUNE INC.
XX
                          Southwood S, Livingston BD, Chesnut R;
ΡI
     Sette A, Sidney J,
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
PI
XX
     WPI; 2001-354887/37.
DR
XX
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
PT
XX
     Claim 32; Page 151; 448pp; English.
PS
XX
CC
     The present invention describes a composition (I) comprising a prepared
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
     allowing for immune escape due to mutations. The groups for inclusion in
CC
CC
     an group-based vaccine may be selected from conserved regions of viral or
     tumour-associated antigens, which therefore reduces the likelihood of
CC
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
CC
     additional advantage of an group-based vaccine approach is the ability to
     combine selected groups (CTL and HTL), and further, to modify the
CC
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
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Search completed: April 8, 2004, 15:39:52 Job time: 44.3077 secs

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OM protein - protein search, using sw model

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4	4	36.4	11	1	US-08-193-521-18	Sequence 18, Appl
5	4	36.4	11	1	US-08-178-570-75	Sequence 75, Appl
6	4	36.4	11	1	US-08-434-120-95	Sequence 95, Appl
7	4	36.4	11	1	US-08-434-120-111	Sequence 111, App
8	4	36.4	11	1	US-08-434-120-112	Sequence 112, App
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                             US-09-033-753-18
                             US-08-970-833-8
                                                        Sequence 8, Appli
86
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                      11 3
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                             US-09-015-003-5
                                                         Sequence 5, Appli
87
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                      11 3
                                                         Sequence 59, Appl
             27.3
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88
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                      11
                                                         Sequence 59, Appl
89
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                             US-09-157-230-59
                                                         Sequence 59, Appl
90
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             27.3
                      11 3
                             US-09-087-811-59
             27.3
                      11 3
                             US-09-130-225-19
                                                         Sequence 19, Appl
91
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                             US-09-156-855-59
                                                         Sequence 59, Appl
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92
                                                         Sequence 77, Appl
93
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                      11 3
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                                                         Sequence 17, Appl
                             US-08-893-749-17
94
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             27.3
                      11 3
                      11 3
                                                         Sequence 28, Appl
             27.3
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                             US-09-158-010-59
                                                         Sequence 59, Appl
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96
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                                                         Sequence 59, Appl
                             US-09-087-647-59
97
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             27.3
                                                         Sequence 9, Appli
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                             US-08-114-877A-9
98
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                                                         Sequence 14, Appl
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                      11 3 US-09-100-089-21
                                                         Sequence 21, Appl
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100
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ALIGNMENTS

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RESULT 1
US-07-725-331-67
; Sequence 67, Application US/07725331
; Patent No. 5294605
  GENERAL INFORMATION:
    APPLICANT: Houghten, Richard
     APPLICANT: Blondelle, Sylvie
     TITLE OF INVENTION: Amphiphilic Peptide Compositions and
     TITLE OF INVENTION: Analogues Thereof
    NUMBER OF SEQUENCES:
                          68
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Dressler, Goldsmith, Sutker, Shore,
      ADDRESSEE: & Milnamow
       STREET: 180 No. 5294605th Stetson
       CITY: Chicago
       STATE: IL
       COUNTRY: USA
;
       ZIP: 60601
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
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COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.24
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/07/725,331
;
       FILING DATE:
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 07/554,422
       FILING DATE: 19-JUL-1990
     ATTORNEY/AGENT INFORMATION:
;
       NAME: Gamson, Edward P.
;
       REGISTRATION NUMBER: 29,381
;
       REFERENCE/DOCKET NUMBER: 421250-80
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 3126165418
       TELEFAX: 3126165460
   INFORMATION FOR SEQ ID NO: 67:
     SEQUENCE CHARACTERISTICS:
;
       LENGTH: 11 amino acids
;
       TYPE: amino acid
       STRANDEDNESS:
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
     FEATURE:
       OTHER INFORMATION: C-terminal amide, may be
       OTHER INFORMATION: acetylated at N-terminus.
US-07-725-331-67
                           36.4%; Score 4; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
  Matches 4; Conservative 0; Mismatches 0; Indels
                                                                     0; Gaps
                                                                                 0;
            6 KLKK 9
Qу
              1111
            з кткк е
Db
RESULT 2
US-08-193-521-1
; Sequence 1, Application US/08193521
; Patent No. 5470950
   GENERAL INFORMATION:
     APPLICANT: Maloy, W. Lee
APPLICANT: Kari, U. Prasad
APPLICANT: Williams, Jon I.
     TITLE OF INVENTION: Biologically Active Peptide TITLE OF INVENTION: Compositions and Uses Therefor
     NUMBER OF SEQUENCES: 19
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Carella, Byrne, Bain, Gilfillan,
       ADDRESSEE: Cecchi & Stewart
       STREET: 6 Becker Farm Road
       CITY: Roseland
       STATE: New Jersey
       COUNTRY: USA
       ZIP: 07068
```

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COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5 inch diskette
      COMPUTER: IBM PS/2
      OPERATING SYSTEM: PC-DOS
      SOFTWARE: DW4.V2
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/193,521
      FILING DATE:
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/07/870,960
      FILING DATE:
      APPLICATION NUMBER: 07/760,054
      FILING DATE: 13-SEP-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: Olstein, Elliot M.
      REGISTRATION NUMBER: 24,025
      REFERENCE/DOCKET NUMBER: 421250-161
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 201-994-1700
;
      TELEFAX: 201-994-1744
  INFORMATION FOR SEQ ID NO: 1:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      OTHER INFORMATION: May be a C-terminal amide,
      OTHER INFORMATION: and/or may be acetylated at
      OTHER INFORMATION: N-terminus.
US-08-193-521-1
                         36.4%; Score 4; DB 1; Length 11;
  Query Match
 Best Local Similarity 100.0%; Pred. No. 4.7e+02;
                             0; Mismatches 0; Indels 0; Gaps
                                                                           0;
 Matches 4; Conservative
           6 KLKK 9
Qу
             3 KLKK 6
Db
RESULT 3
US-08-193-521-17
; Sequence 17, Application US/08193521
; Patent No. 5470950
  GENERAL INFORMATION:
    APPLICANT: Maloy, W. Lee
    APPLICANT: Kari, U. Prasad
    APPLICANT: Williams, Jon I.
    TITLE OF INVENTION: Biologically Active Peptide
    TITLE OF INVENTION: Compositions and Uses Therefor
    NUMBER OF SEQUENCES: 19
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Carella, Byrne, Bain, Gilfillan,
      ADDRESSEE: Cecchi & Stewart
```

```
STREET: 6 Becker Farm Road
      CITY: Roseland
      STATE: New Jersey
      COUNTRY: USA
      ZIP: 07068
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5 inch diskette
      COMPUTER: IBM PS/2
      OPERATING SYSTEM: PC-DOS
;
      SOFTWARE: DW4.V2
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/193,521
;
      FILING DATE:
;
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US/07/870,960
      FILING DATE:
      APPLICATION NUMBER: 07/760,054
      FILING DATE: 13-SEP-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: Olstein, Elliot M.
      REGISTRATION NUMBER: 24,025
      REFERENCE/DOCKET NUMBER: 421250-161
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 201-994-1700
      TELEFAX: 201-994-1744
  INFORMATION FOR SEQ ID NO: 17:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      OTHER INFORMATION: May be a C-terminal amide,
      OTHER INFORMATION: and/or may be acetylated at
      OTHER INFORMATION: N-terminus.
US-08-193-521-17
                         36.4%; Score 4; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
           4; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
          6 KLKK 9
Qу
             7 KLKK 10
RESULT 4
US-08-193-521-18
; Sequence 18, Application US/08193521
; Patent No. 5470950
  GENERAL INFORMATION:
    APPLICANT: Maloy, W. Lee
    APPLICANT: Kari, U. Prasad
    APPLICANT: Williams, Jon I.
    TITLE OF INVENTION: Biologically Active Peptide
```

```
TITLE OF INVENTION: Compositions and Uses Therefor
    NUMBER OF SEQUENCES: 19
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Carella, Byrne, Bain, Gilfillan,
      ADDRESSEE: Cecchi & Stewart
      STREET: 6 Becker Farm Road
      CITY: Roseland
      STATE: New Jersey
      COUNTRY: USA
      ZIP: 07068
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5 inch diskette
;
      COMPUTER: IBM PS/2
;
      OPERATING SYSTEM: PC-DOS
      SOFTWARE: DW4.V2
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/193,521
      FILING DATE:
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/07/870,960
      FILING DATE:
      APPLICATION NUMBER: 07/760,054
      FILING DATE: 13-SEP-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: Olstein, Elliot M.
      REGISTRATION NUMBER: 24,025
      REFERENCE/DOCKET NUMBER: 421250-161
;
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 201-994-1700
;
      TELEFAX: 201-994-1744
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
;
    MOLECULE TYPE: peptide
;
    FEATURE:
;
      OTHER INFORMATION: May be a C-terminal amide,
      OTHER INFORMATION: and/or may be acetylated at
      OTHER INFORMATION: N-terminus.
US-08-193-521-18
                         36.4%; Score 4; DB 1; Length 11;
  Query Match
                         100.0%; Pred. No. 4.7e+02;
  Best Local Similarity
 Matches 4; Conservative 0; Mismatches 0;
                                                     Indels
                                                                0; Gaps
            6 KLKK 9
Qу
             \perp
           7 KLKK 10
RESULT 5
US-08-178-570-75
; Sequence 75, Application US/08178570
; Patent No. 5532167
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GENERAL INFORMATION:
    APPLICANT: Lewis C. Cantley
                Zhou Song yang
    APPLICANT:
;
    TITLE OF INVENTION: Substrate Specificity of Protein Kinases
;
    NUMBER OF SEQUENCES: 77
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: LAHIVE & COCKFIELD
      STREET: 60 STATE STREET, suite 510
      CITY: BOSTON
      STATE: MASSACHUSETTS
      COUNTRY: USA
      ZIP: 02109-1875
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: ASCII text
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/178,570
      FILING DATE: JANUARY 7, 1994
;
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: DeConti, Giulio A., Jr.
      REGISTRATION NUMBER: 31,503
      REFERENCE/DOCKET NUMBER: BBI-004
    TELECOMMUNICATION INFORMATION:
;
      TELEPHONE: (617) 227-7400
      TELEFAX: (617) 227-5941
  INFORMATION FOR SEQ ID NO: 75:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
     FRAGMENT TYPE: internal
US-08-178-570-75
                         36.4%; Score 4; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
           4; Conservative 0; Mismatches 0; Indels
                                                             0; Gaps
                                                                            0;
 Matches
            8 KKKA 11
Qу
              1111
Db
           8 KKKA 11
RESULT 6
US-08-434-120-95
; Sequence 95, Application US/08434120
; Patent No. 5635479
   GENERAL INFORMATION:
    APPLICANT: Baker, Margaret A.
                Jacob, Leonard S.
    APPLICANT:
    APPLICANT: Maloy, W. Lee
    TITLE OF INVENTION: Treatment of Gynecological
    TITLE OF INVENTION: Malignancies with
    TITLE OF INVENTION: Biologically Active Peptides
```

```
NUMBER OF SEQUENCES: 117
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Carella, Byrne, Bain, Gilfillan,
      ADDRESSEE: Cecchi & Stewart
      STREET: 6 Becker Farm Road
      CITY: Roseland
      STATE: New Jersey
      COUNTRY: USA
      ZIP: 07068
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5 inch diskette
      COMPUTER: IBM PS/2
      OPERATING SYSTEM: PC-DOS
      SOFTWARE: DW4.V2
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/434,120
      FILING DATE:
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/297,950
;
      FILING DATE:
      APPLICATION NUMBER: US/08/226,108
      FILING DATE:
      APPLICATION NUMBER: US/07/937,462
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Olstein, Elliot M.
;
      REGISTRATION NUMBER: 24,025
;
      REFERENCE/DOCKET NUMBER: 421250-194
;
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 201-994-1700
      TELEFAX: 201-994-1744
  INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-434-120-95
                         36.4%; Score 4; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
 Matches
            4; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                            0;
Qу
           6 KLKK 9
             +111
           3 KLKK 6
Db
RESULT 7
US-08-434-120-111
; Sequence 111, Application US/08434120
; Patent No. 5635479
; GENERAL INFORMATION:
    APPLICANT: Baker, Margaret A.
    APPLICANT: Jacob, Leonard S.
```

```
APPLICANT: Maloy, W. Lee
    TITLE OF INVENTION: Treatment of Gynecological
    TITLE OF INVENTION: Malignancies with
    TITLE OF INVENTION: Biologically Active Peptides
    NUMBER OF SEQUENCES: 117
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Carella, Byrne, Bain, Gilfillan,
      ADDRESSEE: Cecchi & Stewart
      STREET: 6 Becker Farm Road
      CITY: Roseland
      STATE: New Jersey
      COUNTRY: USA
;
      ZIP: 07068
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5 inch diskette
      COMPUTER: IBM PS/2
      OPERATING SYSTEM: PC-DOS
      SOFTWARE: DW4.V2
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/434,120
;
      FILING DATE:
;
      CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/297,950
      FILING DATE:
      APPLICATION NUMBER: US/08/226,108
      FILING DATE:
      APPLICATION NUMBER: US/07/937,462
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Olstein, Elliot M.
      REGISTRATION NUMBER: 24,025
      REFERENCE/DOCKET NUMBER: 421250-194
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 201-994-1700
       TELEFAX: 201-994-1744
   INFORMATION FOR SEQ ID NO: 111:
     SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-434-120-111
  Query Match
                         36.4%; Score 4; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
  Matches
          4; Conservative
                             0; Mismatches 0; Indels
                                                                0; Gaps
           6 KLKK 9
Qу
             1111
Db
           7 KLKK 10
RESULT 8
US-08-434-120-112
; Sequence 112, Application US/08434120
```

```
; Patent No. 5635479
  GENERAL INFORMATION:
    APPLICANT: Baker, Margaret A.
    APPLICANT: Jacob, Leonard S.
    APPLICANT: Maloy, W. Lee
;
    TITLE OF INVENTION: Treatment of Gynecological
    TITLE OF INVENTION: Malignancies with
    TITLE OF INVENTION: Biologically Active Peptides
    NUMBER OF SEQUENCES: 117
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Carella, Byrne, Bain, Gilfillan,
      ADDRESSEE: Cecchi & Stewart
      STREET: 6 Becker Farm Road
      CITY: Roseland
      STATE: New Jersey
      COUNTRY: USA
      ZIP: 07068
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5 inch diskette
      COMPUTER: IBM PS/2
      OPERATING SYSTEM: PC-DOS
      SOFTWARE: DW4.V2
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/434,120
      FILING DATE:
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/297,950
      FILING DATE:
      APPLICATION NUMBER: US/08/226,108
      FILING DATE:
      APPLICATION NUMBER: US/07/937,462
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Olstein, Elliot M.
      REGISTRATION NUMBER: 24,025
      REFERENCE/DOCKET NUMBER: 421250-194
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 201-994-1700
      TELEFAX: 201-994-1744
   INFORMATION FOR SEQ ID NO:
                             112:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-434-120-112
                         36.4%; Score 4; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
          4; Conservative
                              0; Mismatches
                                                  0; Indels
                                                               0; Gaps
 Matches
           6 KLKK 9
Qу
             Db
           7 KLKK 10
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RESULT 9
US-08-465-325-94
; Sequence 94, Application US/08465325
; Patent No. 5686563
  GENERAL INFORMATION:
    APPLICANT: Magainin Pharmaceuticals Inc.
    APPLICANT: 5110 Campus Drive
    APPLICANT: Plymouth Meeting, PA 19462
    TITLE OF INVENTION: Biologically Active Peptides Having
    TITLE OF INVENTION: N-Terminal Substitutions
    NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
      ADDRESSEE: Dunner
      .STREET: 1300 I. Street, N.W. Suite 700
      CITY: Washington
      STATE: D.C.
      COUNTRY: USA
;
      ZIP: 20005-3315
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/465,325
       FILING DATE: 05-JUN-1995
       CLASSIFICATION: 514
;
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/184,462
       FILING DATE: 18-JAN-94
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/891,201
       FILING DATE: 01-JUN-92
     ATTORNEY/AGENT INFORMATION:
       NAME: Fordis, Jean B
       REGISTRATION NUMBER: 32,984
       REFERENCE/DOCKET NUMBER: 05387.0021-03000
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 408-4000
       TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 94:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-465-325-94
                         36.4%; Score 4; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
            4; Conservative 0; Mismatches
                                                0; Indels 0; Gaps 0;
  Matches
Qy
```

6 KLKK 9

```
RESULT 10
US-08-465-325-110
; Sequence 110, Application US/08465325
; Patent No. 5686563
   GENERAL INFORMATION:
    APPLICANT: Magainin Pharmaceuticals Inc.
    APPLICANT: 5110 Campus Drive
    APPLICANT: Plymouth Meeting, PA 19462
    TITLE OF INVENTION: Biologically Active Peptides Having
    TITLE OF INVENTION: N-Terminal Substitutions
    NUMBER OF SEQUENCES: 153
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
      ADDRESSEE: Dunner
      STREET: 1300 I. Street, N.W. Suite 700
      CITY: Washington
;
      STATE: D.C.
      COUNTRY: USA
      ZIP: 20005-3315
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/465,325
      FILING DATE: 05-JUN-1995
      CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 08/184,462
       FILING DATE: 18-JAN-94
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 07/891,201
       FILING DATE: 01-JUN-92
     ATTORNEY/AGENT INFORMATION:
      NAME: Fordis, Jean B
       REGISTRATION NUMBER: 32,984
       REFERENCE/DOCKET NUMBER: 05387.0021-03000
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 408-4000
       TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-465-325-110
                          36.4%; Score 4; DB 1; Length 11;
  Query Match
                         100.0%; Pred. No. 4.7e+02;
  Best Local Similarity
            4; Conservative 0; Mismatches
                                                  0;
                                                      Indels
                                                                0; Gaps
                                                                            0;
  Matches
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6 KLKK 9
QУ
             -1111
           7 KLKK 10
Db
RESULT 11
US-08-465-325-111
; Sequence 111, Application US/08465325
; Patent No. 5686563
  GENERAL INFORMATION:
    APPLICANT: Magainin Pharmaceuticals Inc.
    APPLICANT: 5110 Campus Drive
    APPLICANT: Plymouth Meeting, PA 19462
    TITLE OF INVENTION: Biologically Active Peptides Having
    TITLE OF INVENTION: N-Terminal Substitutions
    NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
;
      ADDRESSEE: Dunner
;
      STREET: 1300 I. Street, N.W. Suite 700
;
      CITY: Washington
      STATE: D.C.
      COUNTRY: USA
      ZIP: 20005-3315
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/465,325
      FILING DATE: 05-JUN-1995
      CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/184,462
      FILING DATE: 18-JAN-94
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/891,201
      FILING DATE: 01-JUN-92
    ATTORNEY/AGENT INFORMATION:
      NAME: Fordis, Jean B
      REGISTRATION NUMBER: 32,984
      REFERENCE/DOCKET NUMBER: 05387.0021-03000
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 408-4000
      TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 111:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-465-325-111
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Best Local Similarity 100.0%; Pred. No. 4.7e+02;

Query Match

36.4%; Score 4; DB 1; Length 11;

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4; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
 Matches
           6 KLKK 9
Qу
             \mathbf{I}
           7 KLKK 10
RESULT 12
US-08-465-325-112
; Sequence 112, Application US/08465325
; Patent No. 5686563
; GENERAL INFORMATION:
    APPLICANT: Magainin Pharmaceuticals Inc.
    APPLICANT: 5110 Campus Drive
    APPLICANT: Plymouth Meeting, PA 19462
    TITLE OF INVENTION: Biologically Active Peptides Having
    TITLE OF INVENTION: N-Terminal Substitutions
    NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
;
      ADDRESSEE: Dunner
      STREET: 1300 I. Street, N.W. Suite 700
      CITY: Washington
      STATE: D.C.
    COUNTRY: USA
      ZIP: 20005-3315
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/465,325
      FILING DATE: 05-JUN-1995
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: 08/184,462
;
      FILING DATE: 18-JAN-94
;
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: 07/891,201
      FILING DATE: 01-JUN-92
    ATTORNEY/AGENT INFORMATION:
      NAME: Fordis, Jean B
      REGISTRATION NUMBER: 32,984
      REFERENCE/DOCKET NUMBER: 05387.0021-03000
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 408-4000
       TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 112:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-465-325-112
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36.4%; Score 4; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
           4; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
           6 KLKK 9
Qу
             1111
           3 KLKK 6
Db
RESULT 13
US-08-465-325-127
; Sequence 127, Application US/08465325
; Patent No. 5686563
  GENERAL INFORMATION:
    APPLICANT: Magainin Pharmaceuticals Inc.
    APPLICANT: 5110 Campus Drive
    APPLICANT: Plymouth Meeting, PA 19462
    TITLE OF INVENTION: Biologically Active Peptides Having
    TITLE OF INVENTION: N-Terminal Substitutions
    NUMBER OF SEQUENCES: 153
;
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
      ADDRESSEE: Dunner
      STREET: 1300 I. Street, N.W. Suite 700
      CITY: Washington
;
      STATE: D.C.
      COUNTRY: USA
      ZIP: 20005-3315
;
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/465,325
      FILING DATE: 05-JUN-1995
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: 08/184,462
      FILING DATE: 18-JAN-94
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/891,201
      FILING DATE: 01-JUN-92
    ATTORNEY/AGENT INFORMATION:
      NAME: Fordis, Jean B
      REGISTRATION NUMBER: 32,984
      REFERENCE/DOCKET NUMBER: 05387.0021-03000
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 408-4000
       TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 127:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
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36.4%; Score 4; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 4.7e+02;
 Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                         0;
           6 KLKK 9
Qy
             7 KLKK 10
RESULT 14
US-08-465-325-128
; Sequence 128, Application US/08465325
; Patent No. 5686563
  GENERAL INFORMATION:
    APPLICANT: Magainin Pharmaceuticals Inc.
    APPLICANT: 5110 Campus Drive
;
     APPLICANT: Plymouth Meeting, PA 19462
    TITLE OF INVENTION: Biologically Active Peptides Having TITLE OF INVENTION: N-Terminal Substitutions
    NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
      ADDRESSEE: Dunner
      STREET: 1300 I. Street, N.W. Suite 700
      CITY: Washington
       STATE: D.C.
;
      COUNTRY: USA
;
      ZIP: 20005-3315
    COMPUTER READABLE FORM:
     MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/465,325
      FILING DATE: 05-JUN-1995
;
      CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
     APPLICATION NUMBER: 08/184,462
      FILING DATE: 18-JAN-94
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: 07/891,201
      FILING DATE: 01-JUN-92
    ATTORNEY/AGENT INFORMATION:
;
      NAME: Fordis, Jean B
       REGISTRATION NUMBER: 32,984
       REFERENCE/DOCKET NUMBER: 05387.0021-03000
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 408-4000
       TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 128:
     SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
      TYPE: amino acid
     STRANDEDNESS: single
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TOPOLOGY: linear
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US-08-465-325-128
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 Best Local Similarity 100.0%; Pred. No. 4.7e+02;
           4; Conservative
                              0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
 Matches
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Qу
              \perp
            7 KLKK 10
Db
RESULT 15
US-08-465-325-130
; Sequence 130, Application US/08465325
; Patent No. 5686563
  GENERAL INFORMATION:
    APPLICANT: Magainin Pharmaceuticals Inc.
    APPLICANT: 5110 Campus Drive
APPLICANT: Plymouth Meeting, PA 19462
;
    TITLE OF INVENTION: Biologically Active Peptides Having
    TITLE OF INVENTION: N-Terminal Substitutions
    NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
       ADDRESSEE: Dunner
       STREET: 1300 I. Street, N.W. Suite 700
       CITY: Washington
       STATE: D.C.
       COUNTRY: USA
       ZIP: 20005-3315
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/465,325
       FILING DATE: 05-JUN-1995
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
     APPLICATION NUMBER: 08/184,462
       FILING DATE: 18-JAN-94
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 07/891,201
       FILING DATE: 01-JUN-92
     ATTORNEY/AGENT INFORMATION:
       NAME: Fordis, Jean B
       REGISTRATION NUMBER: 32,984
       REFERENCE/DOCKET NUMBER: 05387.0021-03000
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 408-4000
       TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 130:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
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TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-465-325-130
                        36.4%; Score 4; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 4.7e+02;
           4: Conservative 0: Mismatches 0: Indels
                                                                           0;
                                                               0; Gaps
 Matches
           6 KLKK 9
Qу
             1111
           7 KLKK 10
Db
RESULT 16
US-08-465-325-141
; Sequence 141, Application US/08465325
; Patent No. 5686563
  GENERAL INFORMATION:
    APPLICANT: Magainin Pharmaceuticals Inc.
    APPLICANT: 5110 Campus Drive
    APPLICANT: Plymouth Meeting, PA 19462
    TITLE OF INVENTION: Biologically Active Peptides Having
    TITLE OF INVENTION: N-Terminal Substitutions
    NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
      ADDRESSEE: Dunner
      STREET: 1300 I. Street, N.W. Suite 700
      CITY: Washington
      STATE: D.C.
      COUNTRY: USA
;
      ZIP: 20005-3315
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
;
       COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/465,325
      FILING DATE: 05-JUN-1995
      CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/184,462
      FILING DATE: 18-JAN-94
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/891,201
       FILING DATE: 01-JUN-92
     ATTORNEY/AGENT INFORMATION:
       NAME: Fordis, Jean B
       REGISTRATION NUMBER: 32,984
       REFERENCE/DOCKET NUMBER: 05387.0021-03000
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 408-4000
       TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 141:
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SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
     FEATURE:
       NAME/KEY: Modified-site
       LOCATION: 2
       OTHER INFORMATION: /note= "Xaa=ornithine."
US-08-465-325-141
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  Best Local Similarity
  Matches 4; Conservative 0; Mismatches 0;
                                                                              0;
                                                      Indels
                                                                  0; Gaps
            6 KLKK 9
Qу
              \perp
            7 KLKK 10
Dh
RESULT 17
US-08-465-325-146
; Sequence 146, Application US/08465325
; Patent No. 5686563
   GENERAL INFORMATION:
     APPLICANT: Magainin Pharmaceuticals Inc.
     APPLICANT: 5110 Campus Drive
     APPLICANT: Plymouth Meeting, PA 19462
     TITLE OF INVENTION: Biologically Active Peptides Having TITLE OF INVENTION: N-Terminal Substitutions
;
     NUMBER OF SEQUENCES: 153
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
       ADDRESSEE: Dunner
       STREET: 1300 I. Street, N.W. Suite 700
       CITY: Washington
;
       STATE: D.C.
;
       COUNTRY: USA
       ZIP: 20005-3315
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/465,325
       FILING DATE: 05-JUN-1995
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 08/184,462
       FILING DATE: 18-JAN-94
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 07/891,201
       FILING DATE: 01-JUN-92
     ATTORNEY/AGENT INFORMATION:
       NAME: Fordis, Jean B
```

```
REFERENCE/DOCKET NUMBER: 05387.0021-03000
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 408-4000
;
       TELEFAX: (202) 408-4400
;
  INFORMATION FOR SEQ ID NO: 146:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
      TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-465-325-146
                          36.4%; Score 4; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
           4; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0;
            6 KLKK 9
Qy
              1111
            7 KLKK 10
Db
RESULT 18
US-08-343-882-11
; Sequence 11, Application US/08343882
; Patent No. 5792831
  GENERAL INFORMATION:
     APPLICANT: Maloy, W. Lee
    TITLE OF INVENTION: Compositions of and Treatment TITLE OF INVENTION: with Biologically Active
    TITLE OF INVENTION: Peptides Having D-amino acid
    TITLE OF INVENTION: residues
    NUMBER OF SEQUENCES: 11
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Carella, Byrne, Bain,
;
       ADDRESSEE: Gilfillan, Cecchi, Stewart &
;
       ADDRESSEE: Olstein
;
      STREET: 6 Becker Farm Road
       CITY: Roseland
       STATE: New Jersey
      COUNTRY: USA
       ZIP: 07068
     COMPUTER READABLE FORM:
       MEDIUM TYPE: 3.5 inch diskette
       COMPUTER: IBM PS/2
       OPERATING SYSTEM: PC-DOS
       SOFTWARE: DW4.V2
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/343,882
       FILING DATE: 17-NOV-1994
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 08/133,740
       FILING DATE: 05-OCT-1993
      APPLICATION NUMBER: 07/874,685
      FILING DATE: 28-APR-1992
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REGISTRATION NUMBER: 32,984

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APPLICATION NUMBER: 07/522,688
      FILING DATE: 14-MAY-1990
      APPLICATION NUMBER: 07/476,629
      FILING DATE: 08-FEB-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: Olstein, Elliot M.
      REGISTRATION NUMBER: 24,025
      REFERENCE/DOCKET NUMBER: 421250-89
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 201-994-1700
;
      TELEFAX: 201-994-1744
;
  INFORMATION FOR SEQ ID NO:
;
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-343-882-11
  Query Match
                         36.4%; Score 4; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 4.7e+02;
          4; Conservative 0; Mismatches 0;
                                                    Indels
                                                             0; Gaps
                                                                           0;
 Matches
           6 KLKK 9
Qу
             7 KLKK 10
Dh
RESULT 19
US-08-621-803-206
; Sequence 206, Application US/08621803
; Patent No. 5851802
   GENERAL INFORMATION:
    APPLICANT: Better, Marc D.
    TITLE OF INVENTION: Methods for Recombinant Microbial Production of
    TITLE OF INVENTION: Fusion Proteins and BPI-Derived Peptides
;
    NUMBER OF SEQUENCES: 265
;
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
       STREET: 6300 Sears Tower, 233 South Wacker Drive
      CITY: Chicago
      STATE: Illinois
      COUNTRY: United States of America
       ZIP: 60606-6402
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/621,803
       FILING DATE: 22-MAR-1996
    ATTORNEY/AGENT INFORMATION:
     NAME: Borun, Michael F.
      REGISTRATION NUMBER: 25,447
      REFERENCE/DOCKET NUMBER: 27129/33199
```

```
TELECOMMUNICATION INFORMATION:
      TELEPHONE: 312/474-6300
      TELEFAX: 312/474-0448
      TELEX: 25-3856
  INFORMATION FOR SEQ ID NO: 206:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: amino acid
;
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
;
    FEATURE:
      NAME/KEY: misc feature
;
      OTHER INFORMATION: "XMP.350"
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: C-Terminus
      OTHER INFORMATION: /label= Amidation
      OTHER INFORMATION: /note= "The C-Terminus is Amidated."
US-08-621-803-206
                         36.4%; Score 4; DB 2; Length 11;
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 Best Local Similarity 100.0%; Pred. No. 4.7e+02;
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          4; Conservative 0; Mismatches 0; Indels
 Matches
           7 LKKK 10
Qу
             8 LKKK 11
Db
RESULT 20
US-08-621-259A-181
; Sequence 181, Application US/08621259A
; Patent No. 5858974
; GENERAL INFORMATION:
    APPLICANT: Little II, Roger G
    APPLICANT: Lim, Edward
    APPLICANT: Fadem, Mitchell B.
    TITLE OF INVENTION: Anti-Fungal Peptides
    NUMBER OF SEQUENCES: 252
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: McAndrews, Held & Malloy, Ltd.
      STREET: 500 West Madison Street
      CITY: Chicago
      STATE: Illinois
      COUNTRY: United States of America
      ZIP: 60661
;
   COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/621,259A
      FILING DATE: 21-MAR-1996
;
     PRIOR APPLICATION DATA:
     APPLICATION NUMBER: 08/504,841
      FILING DATE: 20-JUL-1995
```

```
ATTORNEY/AGENT INFORMATION:
      NAME: McNicholas, Janet M.
      REGISTRATION NUMBER: 32,918
      REFERENCE/DOCKET NUMBER: 11021US02
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 312/707-8889
      TELEFAX: 312/707-9155
      TELEX:
  INFORMATION FOR SEQ ID NO: 181:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      NAME/KEY: misc feature
      OTHER INFORMATION: "XMP.350"
    FEATURE:
;
      NAME/KEY: Modified-site
;
      LOCATION: C-Terminus
;
      OTHER INFORMATION: /label= Amidation
      OTHER INFORMATION: /note= "The C-Terminus is Amidated."
US-08-621-259A-181
                         36.4%; Score 4; DB 2; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 4.7e+02;
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                                                                            0;
           4; Conservative 0; Mismatches 0; Indels
 Matches
           7 LKKK 10
Qy
             1111
           8 LKKK 11
Db
RESULT 21
US-08-369-643-75
; Sequence 75, Application US/08369643A
; Patent No. 6004757
; GENERAL INFORMATION:
; APPLICANT: Cantley, Lewis C.
; APPLICANT: Songyang, Zhou
  TITLE OF INVENTION: Substrate Specificity of Protein Kinases
; FILE REFERENCE: CNS-001CP
  CURRENT APPLICATION NUMBER: US/08/369,643A
  CURRENT FILING DATE: 1995-01-06
  EARLIER APPLICATION NUMBER: US 08/178,570
; EARLIER FILING DATE: 1994-01-07
; NUMBER OF SEQ ID NOS: 92
   SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 75
   LENGTH: 11
    TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence:peptide
    OTHER INFORMATION: synthesized as a substrate for cyclin containing
    OTHER INFORMATION: kinases
US-08-369-643-75
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36.4%; Score 4; DB 3; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 4.7e+02;
           4; Conservative 0; Mismatches 0; Indels
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                                                               0; Gaps
 Matches
           8 KKKA 11
Qу
             8 KKKA 11
RESULT 22
US-09-217-352-206
; Sequence 206, Application US/09217352
; Patent No. 6274344
  GENERAL INFORMATION:
    APPLICANT: Better, Marc D.
    TITLE OF INVENTION: Methods for Recombinant Microbial Production of
    TITLE OF INVENTION: Fusion Proteins and BPI-Derived Peptides
    NUMBER OF SEQUENCES: 265
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
      STREET: 6300 Sears Tower, 233 South Wacker Drive
      CITY: Chicago
      STATE: Illinois
      COUNTRY: United States of America
      ZIP: 60606-6402
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/217,352
      FILING DATE:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/621,803
       FILING DATE: 22-MAR-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Borun, Michael F.
       REGISTRATION NUMBER: 25,447
       REFERENCE/DOCKET NUMBER: 27129/33199
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 312/474-6300
       TELEFAX: 312/474-0448
       TELEX: 25-3856
   INFORMATION FOR SEQ ID NO: 206:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
     FEATURE:
       NAME/KEY: misc feature
       OTHER INFORMATION: "XMP.350"
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: C-Terminus
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OTHER INFORMATION: /label= Amidation
       OTHER INFORMATION: /note= "The C-Terminus is Amidated."
US-09-217-352-206
                          36.4%; Score 4; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
                                                                             0;
           4; Conservative
                              0; Mismatches
                                                0; Indels
                                                                 0; Gaps
 Matches
            7 LKKK 10
Qу
              -1111
            8 LKKK 11
Db
RESULT 23
US-09-115-737-94
; Sequence 94, Application US/09115737
; Patent No. 6348445
    GENERAL INFORMATION:
         APPLICANT: U. Prasad Kari
                    Taffy J. Williams
                    Michael McLane
         TITLE OF INVENTION: Biologically Active Peptides With Reduced
                             Toxicity in Animals and a Method for Preparing Same
         NUMBER OF SEQUENCES: 156
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
                         Dunner, L.L.P.
              STREET: 1300 I Street, N.W. Suite 700
              CITY: Washington
              STATE: D.C.
              COUNTRY: USA
              ZIP: 20005-3315
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.3
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/115,737
              FILING DATE: 15-Jul-1998
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/465,330
              FILING DATE: 05-JUN-1995
              APPLICATION NUMBER: 08/184,462
              FILING DATE: 18-JAN-94
              APPLICATION NUMBER: 07/891,201
              FILING DATE: 01-JUN-92
         ATTORNEY/AGENT INFORMATION:
              NAME: Fordis, Jean B
              REGISTRATION NUMBER: 32,984
              REFERENCE/DOCKET NUMBER: 05387.0021-06000
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (202) 408-4000
              TELEFAX: (202) 408-4400
    INFORMATION FOR SEQ ID NO: 94:
         SEQUENCE CHARACTERISTICS:
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LENGTH: 11 amino acids
             TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
        SEQUENCE DESCRIPTION: SEQ ID NO: 94:
US-09-115-737-94
                         36.4%; Score 4; DB 4; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 4.7e+02;
                                                                 0; Gaps
           4; Conservative 0; Mismatches 0; Indels
                                                                             0;
 Matches
            6 KLKK 9
Qу
             1111
            3 KLKK 6
RESULT 24
US-09-115-737-110
; Sequence 110, Application US/09115737
; Patent No. 6348445
   GENERAL INFORMATION:
        APPLICANT: U. Prasad Kari
                    Taffy J. Williams
                    Michael McLane
         TITLE OF INVENTION: Biologically Active Peptides With Reduced
                             Toxicity in Animals and a Method for Preparing Same
         NUMBER OF SEQUENCES: 156
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
                         Dunner, L.L.P.
              STREET: 1300 I Street, N.W. Suite 700
              CITY: Washington
              STATE: D.C.
              COUNTRY: USA
              ZIP: 20005-3315
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.3
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/115,737
              FILING DATE: 15-Jul-1998
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/465,330
              FILING DATE: 05-JUN-1995
              APPLICATION NUMBER: 08/184,462
              FILING DATE: 18-JAN-94
              APPLICATION NUMBER: 07/891,201
              FILING DATE: 01-JUN-92
         ATTORNEY/AGENT INFORMATION:
              NAME: Fordis, Jean B
              REGISTRATION NUMBER: 32,984
              REFERENCE/DOCKET NUMBER: 05387.0021-06000
         TELECOMMUNICATION INFORMATION:
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TELEPHONE: (202) 408-4000
;
             TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 110:
        SEQUENCE CHARACTERISTICS:
;
              LENGTH: 11 amino acids
             TYPE: amino acid
              STRANDEDNESS: single
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
        SEQUENCE DESCRIPTION: SEQ ID NO: 110:
US-09-115-737-110
                          36.4%; Score 4; DB 4; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 4.7e+02;
           4; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0;
            6 KLKK 9
Qу
              +111
            7 KLKK 10
RESULT 25
US-09-115-737-111
; Sequence 111, Application US/09115737
; Patent No. 6348445
   GENERAL INFORMATION:
        APPLICANT: U. Prasad Kari
                    Taffy J. Williams
                    Michael McLane
         TITLE OF INVENTION: Biologically Active Peptides With Reduced
                             Toxicity in Animals and a Method for Preparing Same
         NUMBER OF SEQUENCES: 156
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
                         Dunner, L.L.P.
              STREET: 1300 I Street, N.W. Suite 700
              CITY: Washington
              STATE: D.C.
              COUNTRY: USA
              ZIP: 20005-3315
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.3
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/115,737
              FILING DATE: 15-Jul-1998
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/465,330
              FILING DATE: 05-JUN-1995
              APPLICATION NUMBER: 08/184,462
              FILING DATE: 18-JAN-94
              APPLICATION NUMBER: 07/891,201
              FILING DATE: 01-JUN-92
         ATTORNEY/AGENT INFORMATION:
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NAME: Fordis, Jean B
              REGISTRATION NUMBER: 32,984
              REFERENCE/DOCKET NUMBER: 05387.0021-06000
        TELECOMMUNICATION INFORMATION:
              TELEPHONE: (202) 408-4000
              TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 111:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 11 amino acids
;
              TYPE: amino acid
              STRANDEDNESS: single
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
        SEQUENCE DESCRIPTION: SEQ ID NO: 111:
US-09-115-737-111
                          36.4%; Score 4; DB 4; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 4.7e+02;
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                                                                     Gaps
                                                                             0;
            4; Conservative
                              0; Mismatches 0; Indels
            6 KLKK 9
Qу
              7 KLKK 10
Db
RESULT 26
US-09-115-737-112
; Sequence 112, Application US/09115737
; Patent No. 6348445
    GENERAL INFORMATION:
        APPLICANT: U. Prasad Kari
                    Taffy J. Williams
                    Michael McLane
         TITLE OF INVENTION: Biologically Active Peptides With Reduced
                             Toxicity in Animals and a Method for Preparing Same
         NUMBER OF SEQUENCES: 156
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
                         Dunner, L.L.P.
              STREET: 1300 I Street, N.W. Suite 700
              CITY: Washington
              STATE: D.C.
              COUNTRY: USA
              ZIP: 20005-3315
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.3
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/115,737
              FILING DATE: 15-Jul-1998
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/465,330
              FILING DATE: 05-JUN-1995
              APPLICATION NUMBER: 08/184,462
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FILING DATE: 18-JAN-94
              APPLICATION NUMBER: 07/891,201
              FILING DATE: 01-JUN-92
        ATTORNEY/AGENT INFORMATION:
              NAME: Fordis, Jean B
              REGISTRATION NUMBER: 32,984
              REFERENCE/DOCKET NUMBER: 05387.0021-06000
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (202) 408-4000
              TELEFAX: (202) 408-4400
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    INFORMATION FOR SEQ ID NO: 112:
;
         SEQUENCE CHARACTERISTICS:
;
              LENGTH: 11 amino acids
;
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
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US-09-115-737-112
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
           4; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
 Matches
            6 KLKK 9
Qу
             3 KLKK 6
Db
RESULT 27
US-09-115-737-127
; Sequence 127, Application US/09115737
; Patent No. 6348445
    GENERAL INFORMATION:
         APPLICANT: U. Prasad Kari
                    Taffy J. Williams
                    Michael McLane
;
         TITLE OF INVENTION: Biologically Active Peptides With Reduced
;
                             Toxicity in Animals and a Method for Preparing Same
         NUMBER OF SEQUENCES: 156
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
                         Dunner, L.L.P.
              STREET: 1300 I Street, N.W. Suite 700
              CITY: Washington
              STATE: D.C.
              COUNTRY: USA
              ZIP: 20005-3315
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.3
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/115,737
              FILING DATE: 15-Jul-1998
              CLASSIFICATION: <Unknown>
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PRIOR APPLICATION DATA:
             APPLICATION NUMBER: 08/465,330
             FILING DATE: 05-JUN-1995
             APPLICATION NUMBER: 08/184,462
             FILING DATE: 18-JAN-94
             APPLICATION NUMBER: 07/891,201
             FILING DATE: 01-JUN-92
        ATTORNEY/AGENT INFORMATION:
             NAME: Fordis, Jean B
              REGISTRATION NUMBER: 32,984
              REFERENCE/DOCKET NUMBER: 05387.0021-06000
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: (202) 408-4000
             TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 127:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 127:
US-09-115-737-127
                         36.4%; Score 4; DB 4; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 4.7e+02;
                               0; Mismatches 0; Indels
                                                                 0; Gaps
           4; Conservative
 Matches
           6 KLKK 9
Qy .
             1111
           7 KLKK 10
Db
RESULT 28
US-09-115-737-128
; Sequence 128, Application US/09115737
; Patent No. 6348445
   GENERAL INFORMATION:
         APPLICANT: U. Prasad Kari
                    Taffy J. Williams
                    Michael McLane
         TITLE OF INVENTION: Biologically Active Peptides With Reduced
                             Toxicity in Animals and a Method for Preparing Same
         NUMBER OF SEQUENCES: 156
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
                         Dunner, L.L.P.
              STREET: 1300 I Street, N.W. Suite 700
              CITY: Washington
              STATE: D.C.
              COUNTRY: USA
              ZIP: 20005-3315
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.3
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CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/115,737
              FILING DATE: 15-Jul-1998
             CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
             APPLICATION NUMBER: 08/465,330
              FILING DATE: 05-JUN-1995
             APPLICATION NUMBER: 08/184,462
              FILING DATE: 18-JAN-94
             APPLICATION NUMBER: 07/891,201
              FILING DATE: 01-JUN-92
        ATTORNEY/AGENT INFORMATION:
             NAME: Fordis, Jean B
              REGISTRATION NUMBER: 32,984
              REFERENCE/DOCKET NUMBER: 05387.0021-06000
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (202) 408-4000
              TELEFAX: (202) 408-4400
    INFORMATION FOR SEQ ID NO: 128:
         SEQUENCE CHARACTERISTICS:
;
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 128:
US-09-115-737-128
                          36.4%; Score 4; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
  Matches 4; Conservative 0; Mismatches 0; Indels
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                                                                             0;
            6 KLKK 9
Qу
             7 KLKK 10
Db
RESULT 29
US-09-115-737-130
; Sequence 130, Application US/09115737
; Patent No. 6348445
    GENERAL INFORMATION:
         APPLICANT: U. Prasad Kari
                    Taffy J. Williams
                    Michael McLane
         TITLE OF INVENTION: Biologically Active Peptides With Reduced
                             Toxicity in Animals and a Method for Preparing Same
         NUMBER OF SEQUENCES: 156
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
                         Dunner, L.L.P.
              STREET: 1300 I Street, N.W. Suite 700
              CITY: Washington
              STATE: D.C.
              COUNTRY: USA
              ZIP: 20005-3315
         COMPUTER READABLE FORM:
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MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.3
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/115,737
             FILING DATE: 15-Jul-1998
             CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: 08/465,330
             FILING DATE: 05-JUN-1995
             APPLICATION NUMBER: 08/184,462
             FILING DATE: 18-JAN-94
             APPLICATION NUMBER: 07/891,201
             FILING DATE: 01-JUN-92
        ATTORNEY/AGENT INFORMATION:
             NAME: Fordis, Jean B
             REGISTRATION NUMBER: 32,984
             REFERENCE/DOCKET NUMBER: 05387.0021-06000
        TELECOMMUNICATION INFORMATION:
              TELEPHONE: (202) 408-4000
              TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 130:
        SEQUENCE CHARACTERISTICS:
;
              LENGTH: 11 amino acids
             TYPE: amino acid
              STRANDEDNESS: single
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
        SEQUENCE DESCRIPTION: SEQ ID NO: 130:
US-09-115-737-130
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 Query Match
 Best Local Similarity 100.0%; Pred. No. 4.7e+02;
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                                                  0; Indels
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                                                                             0;
           4; Conservative
 Matches
            6 KLKK 9
QУ
             7 KLKK 10
Db
RESULT 30
US-09-115-737-141
; Sequence 141, Application US/09115737
; Patent No. 6348445
   GENERAL INFORMATION:
        APPLICANT: U. Prasad Kari
                    Taffy J. Williams
                    Michael McLane
         TITLE OF INVENTION: Biologically Active Peptides With Reduced
                             Toxicity in Animals and a Method for Preparing Same
        NUMBER OF SEQUENCES: 156
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
                         Dunner, L.L.P.
              STREET: 1300 I Street, N.W. Suite 700
              CITY: Washington
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COUNTRY: USA
              ZIP: 20005-3315
         COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.3
         CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/115,737
              FILING DATE: 15-Jul-1998
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
             APPLICATION NUMBER: 08/465,330
              FILING DATE: 05-JUN-1995
             APPLICATION NUMBER: 08/184,462
              FILING DATE: 18-JAN-94
              APPLICATION NUMBER: 07/891,201
              FILING DATE: 01-JUN-92
         ATTORNEY/AGENT INFORMATION:
              NAME: Fordis, Jean B
              REGISTRATION NUMBER: 32,984
              REFERENCE/DOCKET NUMBER: 05387.0021-06000
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (202) 408-4000
              TELEFAX: (202) 408-4400
    INFORMATION FOR SEQ ID NO: 141:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         FEATURE:
              NAME/KEY: Modified-site
              LOCATION:
              OTHER INFORMATION: /note= "Xaa=ornithine."
         SEQUENCE DESCRIPTION: SEQ ID NO: 141:
US-09-115-737-141
                          36.4%; Score 4; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
                               0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            4; Conservative
  Matches
            6 KLKK 9
Qу
              IIII
Db
            7 KLKK 10
RESULT 31
US-09-115-737-146
; Sequence 146, Application US/09115737
; Patent No. 6348445
    GENERAL INFORMATION:
         APPLICANT: U. Prasad Kari
                    Taffy J. Williams
                    Michael McLane
```

STATE: D.C.

```
TITLE OF INVENTION: Biologically Active Peptides With Reduced
                             Toxicity in Animals and a Method for Preparing Same
        NUMBER OF SEQUENCES: 156
        CORRESPONDENCE ADDRESS:
              ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
                         Dunner, L.L.P.
              STREET: 1300 I Street, N.W. Suite 700
              CITY: Washington
              STATE: D.C.
              COUNTRY: USA
              ZIP: 20005-3315
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.3
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/115,737
              FILING DATE: 15-Jul-1998
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
             APPLICATION NUMBER: 08/465,330
              FILING DATE: 05-JUN-1995
              APPLICATION NUMBER: 08/184,462
              FILING DATE: 18-JAN-94
              APPLICATION NUMBER: 07/891,201
              FILING DATE: 01-JUN-92
        ATTORNEY/AGENT INFORMATION:
              NAME: Fordis, Jean B
              REGISTRATION NUMBER: 32,984
              REFERENCE/DOCKET NUMBER: 05387.0021-06000
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (202) 408-4000
              TELEFAX: (202) 408-4400
    INFORMATION FOR SEQ ID NO: 146:
         SEQUENCE CHARACTERISTICS:
;
              LENGTH: 11 amino acids
;
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 146:
US-09-115-737-146
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
                          100.0%; Pred. No. 4.7e+02;
  Best Local Similarity
  Matches 4; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0;
            6 KLKK 9
QУ
              \mathbf{H}
            7 KLKK 10
Db
RESULT 32
US-09-148-545-274
; Sequence 274, Application US/09148545
; Patent No. 6590075
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; GENERAL INFORMATION:
  APPLICANT: Rosen et al.
  TITLE OF INVENTION: 70 Human Secreted Proteins
  FILE REFERENCE: PZ001P1
  CURRENT APPLICATION NUMBER: US/09/148,545
  CURRENT FILING DATE: 1998-09-04
  EARLIER APPLICATION NUMBER: PCT/US98/04482
  EARLIER FILING DATE: 1998-03-06
  EARLIER APPLICATION NUMBER: 60/040,162
  EARLIER FILING DATE: 1997-03-07
  EARLIER APPLICATION NUMBER: 60/040,333
  EARLIER FILING DATE: 1997-03-07
  EARLIER APPLICATION NUMBER: 60/038,621
  EARLIER FILING DATE: 1997-03-07
  EARLIER APPLICATION NUMBER: 60/040,161
  EARLIER FILING DATE: 1997-03-07
  EARLIER APPLICATION NUMBER: 60/040,626
  EARLIER FILING DATE: 1997-03-07
  EARLIER APPLICATION NUMBER: 60/040,334
  EARLIER FILING DATE: 1997-03-07
  EARLIER APPLICATION NUMBER: 60/040,336
  EARLIER FILING DATE: 1997-03-07
  EARLIER APPLICATION NUMBER: 60/040,163
  EARLIER FILING DATE: 1997-03-07
  EARLIER APPLICATION NUMBER: 60/047,615
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,600
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,597
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,502
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,633
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,583
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,617
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,618
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,503
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,592
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,581
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,584
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,500
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,587
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,492
  EARLIER FILING DATE: 1997-05-23
  EARLIER APPLICATION NUMBER: 60/047,598
; EARLIER FILING DATE: 1997-05-23
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; EARLIER APPLICATION NUMBER: 60/047,613

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; EARLIER FILING DATE: 1997-05-23
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- ; EARLIER APPLICATION NUMBER: 60/047,582
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,596
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,612
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,632
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,601
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/043,580
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,568
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,314
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,569
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,311
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,671
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,674
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,669
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,312
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,313
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,672
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,315
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/048,974
- ; EARLIER FILING DATE: 1997-06-06
- ; EARLIER APPLICATION NUMBER: 60/056,886
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,877
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,889
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,893
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,630
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,878
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,662
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,872
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,882
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,637
- ; EARLIER FILING DATE: 1997-08-22

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; EARLIER APPLICATION NUMBER: 60/056,903
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- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,888
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,879
- ; EARLIER FILING DATE: 1997-08-22
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- ; EARLIER APPLICATION NUMBER: 60/056,894
- ; EARLIER FILING DATE: 1997-08-22
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- ; EARLIER APPLICATION NUMBER: 60/056,874
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- ; EARLIER APPLICATION NUMBER: 60/056,910
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,864
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,631
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,845
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,892
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/047,595
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/057,761
- ; EARLIER FILING DATE: 05-Sep-1997
- ; EARLIER APPLICATION NUMBER: 60/047,599
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,588
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,585
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,586
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,590
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,594
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,589
- EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,593
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,614
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/043,578
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,576
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/047,501
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/043,670
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/056,632

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EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/056,664
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/056,876
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/056,881
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/056,909
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/056,875
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/056,862
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/056,887
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/056,908
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/048,964
  EARLIER FILING DATE: 1997-06-06
  EARLIER APPLICATION NUMBER: 60/057,650
  EARLIER FILING DATE: 1997-09-05
  EARLIER APPLICATION NUMBER: 60/056,884
  EARLIER FILING DATE: 1997-08-22
  NUMBER OF SEQ ID NOS: 280
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 274
   LENGTH: 11
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  Best Local Similarity
                         100.0%; Pred. No. 4.7e+02;
           4; Conservative 0; Mismatches 0; Indels
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 Matches
           1 AGSA 4
Qу
             3 AGSA 6
RESULT 33
US-09-677-664B-181
; Sequence 181, Application US/09677664B
; Patent No. 6664231
    GENERAL INFORMATION:
        APPLICANT: Little II, Roger G
                    Lim, Edward
                    Fadem, Mitchell B.
         TITLE OF INVENTION: Anti-Fungal Peptides
         NUMBER OF SEQUENCES: 257
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: McAndrews, Held & Malloy, Ltd.
              STREET: 500 West Madison Street
              CITY: Chicago
              STATE: Illinois
              COUNTRY: United States of America
              ZIP: 60661
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
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OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.25
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/677,664B
             FILING DATE: 07-Mar-2003
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: 09/227,659
             FILING DATE: 08-Jan-1999
        ATTORNEY/AGENT INFORMATION:
             NAME: McNicholas, Janet M.
             REGISTRATION NUMBER: 32,918
             REFERENCE/DOCKET NUMBER: 11021US06
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: 312/775-8000
             TELEFAX: 312/775-8100
             TELEX: <Unknown>
   INFORMATION FOR SEQ ID NO: 181:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 11 amino acids
             TYPE: amino acid
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
        FEATURE:
             NAME/KEY: misc feature
             OTHER INFORMATION: "XMP.350"
        FEATURE:
             NAME/KEY: Modified-site
             LOCATION: C-Terminus
             OTHER INFORMATION: /label= Amidation
              /note= "The C-Terminus is Amidated."
        SEQUENCE DESCRIPTION: SEQ ID NO: 181:
US-09-677-664B-181
                         36.4%; Score 4; DB 4; Length 11;
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 Best Local Similarity 100.0%; Pred. No. 4.7e+02;
           4; Conservative 0; Mismatches 0; Indels
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 Matches
           7 LKKK 10
Qy
              8 LKKK 11
Db
RESULT 34
PCT-US91-05047-67
; Sequence 67, Application PC/TUS9105047
  GENERAL INFORMATION:
    APPLICANT: Houghten, Richard
    APPLICANT: Blondelle, Sylvie
    TITLE OF INVENTION: Amphiphilic Peptide Compositions and
    TITLE OF INVENTION: Analogues Thereof
    NUMBER OF SEQUENCES:
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Dressler, Goldsmith, Sutker, Shore,
      ADDRESSEE:
                  & Milnamow
      STREET: 180 North Stetson
      CITY: Chicago
      STATE: IL
```

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COUNTRY: USA
      ZIP: 60601
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.24
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: PCT/US91/05047
      FILING DATE: 19910717
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/554,422
;
      FILING DATE: 19-JUL-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: Gamson, Edward P.
      REGISTRATION NUMBER: 29,381
;
      REFERENCE/DOCKET NUMBER: 421250-80
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 3126165418
       TELEFAX: 3126165460
;
  INFORMATION FOR SEQ ID NO: 67:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
     FEATURE:
      OTHER INFORMATION: C-terminal amide, may be
      OTHER INFORMATION: acetylated at N-terminus.
PCT-US91-05047-67
                         36.4%; Score 4; DB 5; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
           4; Conservative 0; Mismatches 0; Indels
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  Matches
            6 KLKK 9
Qу
             3 KLKK 6
Db
RESULT 35
PCT-US95-00147-75
; Sequence 75, Application PC/TUS9500147
  GENERAL INFORMATION:
    APPLICANT:
     TITLE OF INVENTION: Substrate Specificity of Protein Kinases
     NUMBER OF SEQUENCES: 88
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: LAHIVE & COCKFIELD
       STREET: 60 STATE STREET, suite 510
       CITY: BOSTON
      STATE: MASSACHUSETTS
      COUNTRY: USA
       ZIP: 02109-1875
     COMPUTER READABLE FORM:
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MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: ASCII text
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: PCT/US95/00147
      FILING DATE:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/178,570
      FILING DATE: JANUARY 7, 1994
    ATTORNEY/AGENT INFORMATION:
      NAME: DeConti, Giulio A., Jr.
      REGISTRATION NUMBER: 31,503
      REFERENCE/DOCKET NUMBER: BBI-004CPPC
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617) 227-7400
      TELEFAX: (617) 227-5941
  INFORMATION FOR SEQ ID NO: 75:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FRAGMENT TYPE: internal
PCT-US95-00147-75
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.7e+02;
           4; Conservative 0; Mismatches 0; Indels 0; Gaps
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 Matches
           8 KKKA 11
Qу
            1111
           8 KKKA 11
Db
RESULT 36
PCT-US95-09262-181
; Sequence 181, Application PC/TUS9509262
  GENERAL INFORMATION:
    APPLICANT:
    TITLE OF INVENTION: Anti-Fungal Peptides
    NUMBER OF SEQUENCES: 206
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
       STREET: 6300 Sears Tower, 233 South Wacker Drive
      CITY: Chicago
      STATE: Illinois
      COUNTRY: United States of America
       ZIP: 60606-6402
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: PCT/US95/09262
     FILING DATE:
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PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/372,105
      FILING DATE: 13-JAN-95
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/306,473
      FILING DATE: 15-SEP-94
    PRIOR APPLICATION DATA:
    APPLICATION NUMBER: 08/273,540
     FILING DATE: 11-JUL-94
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: 08/209,762
      FILING DATE: 11-MAR-94
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: 08/183,222
      FILING DATE: 14-JAN-94
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/093,202
      FILING DATE: 15-JUL-93
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/030,644
      FILING DATE: 12-MAR-93
    ATTORNEY/AGENT INFORMATION:
     NAME: Borun, Michael F.
      REGISTRATION NUMBER: 25,447
      REFERENCE/DOCKET NUMBER: 27129/10040
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 312/474-6300
      TELEFAX: 312/474-0448
      TELEX: 25-3856
  INFORMATION FOR SEQ ID NO: 181:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
     NAME/KEY: misc feature
      OTHER INFORMATION: "XMP.350"
    FEATURE:
     NAME/KEY: Modified-site
      LOCATION: C-Terminus
      OTHER INFORMATION: /label= Amidation
      OTHER INFORMATION: /note= "The C-Terminus is Amidated"
PCT-US95-09262-181
                         36.4%; Score 4; DB 5; Length 11;
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Qy
             \parallel \parallel \parallel \parallel \parallel
       8 LKKK 11
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RESULT 37 5188961-5 ;Patent No. 5188961

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APPLICANT: OVERBYE, KAREN M.; PERO, JANICE; ROBBINS, PHILLIPS W.
    TITLE OF INVENTION: DNA ENCODING A STREPTOMYCES ENDOCHITINASE
;56 SIGNAL PEPTIDE
    NUMBER OF SEQUENCES: 8
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/473,309
      FILING DATE: 01-FEB-1990
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 24,002
      FILING DATE: 10-MAR-1987
;SEQ ID NO:5:
      LENGTH: 11
5188961-5
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           1 AGSA 4
Qy
             \perp
            3 AGSA 6
Db
RESULT 38
US-07-664-989B-17
; Sequence 17, Application US/07664989B
; Patent No. 5223409
  GENERAL INFORMATION:
    APPLICANT: Ladner, Robert Charles APPLICANT: Guterman, Sonia Kosow
    APPLICANT: Roberts, Bruce Lindsay
    APPLICANT: Markland, William
    APPLICANT: Ley, Arthur Charles
    APPLICANT: Kent, Rachel Baribault
     TITLE OF INVENTION: Directed Evolution of No. 5223409el
     TITLE OF INVENTION: Binding Proteins
    NUMBER OF SEQUENCES: 121
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: Browdy and Neimark
      STREET: 419 Seventh Street, N.W.
      STREET: Suite 300
       CITY: Washington,
       STATE: DC
      COUNTRY: USA
       ZIP: 20004
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: WORDPERFECT 4.2
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/07/664,989B
       FILING DATE: 19910301
      CLASSIFICATION: 530
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/US89/03731
      FILING DATE: 01-SEP-1989
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PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/487,063
      FILING DATE: 02-MAR-1990
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/240,160
      FILING DATE: 02-SEP-1988
    ATTORNEY/AGENT INFORMATION:
      NAME: Cooper, Iver P.
      REGISTRATION NUMBER: 28005
      REFERENCE/DOCKET NUMBER: LADNER 7
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-628-5197
      TELEFAX: 202-737-3528
  INFORMATION FOR SEQ ID NO: 17:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-07-664-989B-17
                         27.3%; Score 3; DB 1; Length 11;
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           2 GSA 4
Qу
             \perp
            6 GSA 8
Db
RESULT 39
US-07-830-330-2
; Sequence 2, Application US/07830330
; Patent No. 5288704
  GENERAL INFORMATION:
    APPLICANT: Ungheri, Domenico
    APPLICANT: Garofano, Luisa
APPLICANT: Battistini, Carlo
    APPLICANT: Carminati, Paolo
     APPLICANT: Mazue, Guy
     TITLE OF INVENTION: SYNERGISTIC COMPOSITION COMPRISING A
     TITLE OF INVENTION: FIBROBLAST GROWTH FACTOR AND A SULFATED
POLYSACCHARIDE,
     TITLE OF INVENTION: FOR USE AS ANTIVIRAL AGENT
     NUMBER OF SEQUENCES: 15
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
       ADDRESSEE: P.C.
       STREET: 1755 Jefferson Davis Highway, Fourth Floor
       CITY: Arlington
       STATE: Virginia
       ZIP: 22202
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
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CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/830,330
      FILING DATE: 19920420
      CLASSIFICATION: 424
    ATTORNEY/AGENT INFORMATION:
      NAME: Oblon, No. 5288704man F.
      REGISTRATION NUMBER: 24,618
;
      REFERENCE/DOCKET NUMBER: 769-230-0
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 521-4500
;
      TELEFAX: (703) 486-2347
;
      TELEX: 248855 OPAT UR
;
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
     FRAGMENT TYPE: N-terminal
     ORIGINAL SOURCE:
      ORGANISM: Homo sapiens
US-07-830-330-2
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.4e+03;
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           3; Conservative
                              0; Mismatches 0; Indels
 Matches
           1 AGS 3
Qу
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            5 AGS 7
Db
RESULT 40
US-07-914-280-10
; Sequence 10, Application US/07914280
; Patent No. 5304497
  GENERAL INFORMATION:
     APPLICANT: Boyd, Victoria L.
     APPLICANT: Bozzini, MeriLisa
    APPLICANT: Guga, Piotr J.
    APPLICANT: Zon, Gerald
     TITLE OF INVENTION: Method of Forming N-Protected Amino Acid
     TITLE OF INVENTION: Thiohydantoins
     NUMBER OF SEQUENCES: 14
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Law Offices of Peter Dehlinger
       STREET: 350 Cambridge Avenue, Suite 300
      CITY: Palo Alto
       STATE: CA
       COUNTRY: USA
       ZIP: 94306
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
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APPLICATION NUMBER: US/07/914,280
      FILING DATE: 19920715
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
     NAME: Fabian, Gary R.
      REGISTRATION NUMBER: 33,875
      REFERENCE/DOCKET NUMBER: 0550-0025
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 324-0880
;
      TELEFAX: (415) 324-0960
  INFORMATION FOR SEQ ID NO: 10:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      TOPOLOGY: linear
    MOLECULE TYPE: protein
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
    ORIGINAL SOURCE:
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US-07-914-280-10
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Qу
             -111
           9 SAV 11
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RESULT 41
US-07-914-280-11
; Sequence 11, Application US/07914280
; Patent No. 5304497
  GENERAL INFORMATION:
    APPLICANT: Boyd, Victoria L. APPLICANT: Bozzini, MeriLisa
;
    APPLICANT: Guga, Piotr J.
    APPLICANT: Zon, Gerald
    TITLE OF INVENTION: Method of Forming N-Protected Amino Acid
    TITLE OF INVENTION: Thiohydantoins
    NUMBER OF SEQUENCES: 14
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Law Offices of Peter Dehlinger
      STREET: 350 Cambridge Avenue, Suite 300
      CITY: Palo Alto
      STATE: CA
      COUNTRY: USA
       ZIP: 94306
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
   CURRENT APPLICATION DATA:
  APPLICATION NUMBER: US/07/914,280
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FILING DATE: 19920715
       CLASSIFICATION: 435
     ATTORNEY/AGENT INFORMATION:
       NAME: Fabian, Gary R.
       REGISTRATION NUMBER: 33,875
       REFERENCE/DOCKET NUMBER: 0550-0025
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 324-0880
       TELEFAX: (415) 324-0960
   INFORMATION FOR SEQ ID NO: 11:
     SEQUENCE CHARACTERISTICS:
    LENGTH: 11 amino acids
       TYPE: AMINO ACID
       TOPOLOGY: linear
    MOLECULE TYPE: protein
     HYPOTHETICAL: NO
     ANTI-SENSE: NO
     ORIGINAL SOURCE:
       INDIVIDUAL ISOLATE: K12S
US-07-914-280-11
  Query Match
                           27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 4.4e+03;
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Qу
              -111
            9 SAV 11
Db
RESULT 42
US-08-049-871-6
; Sequence 6, Application US/08049871
; Patent No. 5358933
   GENERAL INFORMATION:
     APPLICANT: Porro, Massimo
     TITLE OF INVENTION: Synthetic Peptides for Detoxification TITLE OF INVENTION: of Bacterial Endotoxins and for the TITLE OF INVENTION: Prevention and Treatment of Septic
     TITLE OF INVENTION: Shock
     NUMBER OF SEQUENCES: 8
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Hedman, Gibson, Costigan & Hoare
       STREET: 1185 Avenue of the Americas
       CITY: New York
       STATE: New York
       COUNTRY: USA
       ZIP: 10036
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Diskette, 3.50 inch, 1.44 Mb storage
       COMPUTER: IBM PS/2
       OPERATING SYSTEM: DOS
       SOFTWARE: Word Perfect 5.1
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/049,871
       FILING DATE:
      CLASSIFICATION: 514
```

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PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/07/658,744
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Costigan, James V.
      REGISTRATION NUMBER: 25,669
      REFERENCE/DOCKET NUMBER: 576-001
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 302-8989
      TELEFAX: (212) 302-8998
  INFORMATION FOR SEQ ID NO: 6:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: circular
US-08-049-871-6
                         27.3%; Score 3; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 4.4e+03;
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            3; Conservative
                               0; Mismatches
                                                                0; Gaps
           7 LKK 9
Qу
             \perp
           8 LKK 10
Db
RESULT 43
US-07-819-893-6
; Sequence 6, Application US/07819893
; Patent No. 5371186
; GENERAL INFORMATION:
    APPLICANT: Porro, Massimo
    TITLE OF INVENTION: Synthetic Peptides for Detoxification
    TITLE OF INVENTION: of Bacterial Endotoxins and for the
    TITLE OF INVENTION: Prevention and Treatment of Septic
     TITLE OF INVENTION: Shock
    NUMBER OF SEQUENCES: 10
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Hedman, Gibson, Costigan & Hoare
      STREET: 1185 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: USA
      ZIP: 10036
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette, 3.50 inch, 1.44 Mb storage
      COMPUTER: IBM PS/2
      OPERATING SYSTEM: DOS
       SOFTWARE: Word Perfect 5.1
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/819,893
       FILING DATE: 19920115
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER:
       FILING DATE:
     ATTORNEY/AGENT INFORMATION:
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NAME: Costigan, James V.
       REGISTRATION NUMBER: 25,669
       REFERENCE/DOCKET NUMBER: 576-002
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 302-8989
;
       TELEFAX: (212) 302-8998
   INFORMATION FOR SEQ ID NO: 6:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: AMINO ACID
       TOPOLOGY: circular
US-07-819-893-6
                          27.3%; Score 3; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 4.4e+03;
  Best Local Similarity
                                                 0; Indels
                                 0; Mismatches
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            3; Conservative
            7 LKK 9
Qу
              |\cdot|
            8 LKK 10
RESULT 44
US-08-029-333-37
; Sequence 37, Application US/08029333
; Patent No. 5399667
   GENERAL INFORMATION:
     APPLICANT: Frazier, William A. APPLICANT: Kosfeld, Minh D.
     TITLE OF INVENTION: Thrombospondin Receptor Binding Peptides
     NUMBER OF SEQUENCES: 47
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Scott J. Meyer, Monsanto Co., A3SG
       STREET: 800 N. Lindbergh Blvd.
       CITY: St. Louis
       STATE: Missouri
       COUNTRY: USA
       ZIP: 63167
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/029,333
       FILING DATE: 19930305
       CLASSIFICATION: 530
     ATTORNEY/AGENT INFORMATION:
       NAME: Meyer, Scott J.
       REGISTRATION NUMBER: 25,275
       REFERENCE/DOCKET NUMBER: 07-24(982)A
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (314)694-3117
       TELEFAX: (314)694-5435
   INFORMATION FOR SEQ ID NO: 37:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
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TOPOLOGY: linear
   MOLECULE TYPE: peptide
US-08-029-333-37
 Query Match 27.3%; Score 3; DB 1; Length 11; Best Local Similarity 100.0%; Pred. No. 4.4e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
           5 VKL 7
             111
           4 VKL 6
RESULT 45
US-07-694-983-15
; Sequence 15, Application US/07694983
; Patent No. 5432260
; GENERAL INFORMATION:
    APPLICANT: Stahl, Philip D.
;
    TITLE OF INVENTION: HIGH AFFINITY MANNOSE RECEPTOR TITLE OF INVENTION: LIGANDS
    NUMBER OF SEQUENCES: 19
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: Irell & Manella
      STREET: 545 Middlefield Road, Suite 200
      CITY: Menlo Park
      STATE: California
      COUNTRY: USA
      ZIP: 94025
    COMPUTER READABLE FORM:
     MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
     OPERATING SYSTEM: PC-DOS/MS-DOS
     SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
    APPLICATION NUMBER: US/07/694,983
      FILING DATE: 19910503
      CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
     NAME: Murashige, Kate H.
     REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 9500-0039.00
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 415-327-7250
       TELEFAX: 415-327-2951
       TELEX: 706141
   INFORMATION FOR SEQ ID NO: 15:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: AMINO ACID
      STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
     FEATURE:
     NAME/KEY: Peptide
     LOCATION: 1
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TYPE: AMINO ACID

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OTHER INFORMATION: /label= Ac-
      NAME/KEY: Peptide
      LOCATION: 11
      OTHER INFORMATION: /label= -NH2
US-07-694-983-15
                        27.3%; Score 3; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 4.4e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
                                                                          0;
 Matches
           8 KKK 10
Qy
            2 KKK 4
Dh
RESULT 46
US-08-116-733-35
; Sequence 35, Application US/08116733
; Patent No. 5516632
; GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
    APPLICATION NUMBER: US/08/116,733
     FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
  INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-35
```

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27.3%; Score 3; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 4.4e+03;
                             0; Mismatches 0; Indels 0; Gaps
                                                                       0;
 Matches
           3; Conservative
           9 KKA 11
Qy
             111
           3 KKA 5
Db
RESULT 47
US-08-218-025A-75
; Sequence 75, Application US/08218025A
; Patent No. 5556744
; GENERAL INFORMATION:
    APPLICANT: Weiner, David B.
    APPLICANT: Ugen, Kenneth E.
    APPLICANT: Williams, William V.
    TITLE OF INVENTION: Methods and Compositions for Diagnosing
    TITLE OF INVENTION: and Treating Certain HIV Infected Patients
    NUMBER OF SEQUENCES: 197
;
    CORRESPONDENCE ADDRESS:
    ADDRESSEE: Howson and Howson
      STREET: P.O. Box 457, 321 No. 5556744ristown Road
      CITY: Spring House
      STATE: Pennsylvania
;
      COUNTRY: U.S.A.
      ZIP: 19477
;
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
;
     APPLICATION NUMBER: US/08/218,025A
;
      FILING DATE: 24-MAR-1994
      CLASSIFICATION: 424
;
   PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/891,451
       FILING DATE: 29-MAY-1992
    ATTORNEY/AGENT INFORMATION:
     NAME: Bak, Mary E.
      REGISTRATION NUMBER: 31,215
      REFERENCE/DOCKET NUMBER: WST33A
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (215) 540-9206
       TELEFAX: (215) 540-5818
   INFORMATION FOR SEQ ID NO: 75:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: unknown
     MOLECULE TYPE: peptide
US-08-218-025A-75
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 4.4e+03;
  Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
```

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1 AGS 3
QУ
             111
           3 AGS 5
RESULT 48
US-08-218-025A-163
; Sequence 163, Application US/08218025A
; Patent No. 5556744
  GENERAL INFORMATION:
    APPLICANT: Weiner, David B.
    APPLICANT: Ugen, Kenneth E.
    APPLICANT: Williams, William V.
    TITLE OF INVENTION: Methods and Compositions for Diagnosing
    TITLE OF INVENTION: and Treating Certain HIV Infected Patients
    NUMBER OF SEQUENCES: 197
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Howson and Howson
      STREET: P.O. Box 457, 321 No. 5556744ristown Road
      CITY: Spring House
      STATE: Pennsylvania
      COUNTRY: U.S.A.
      ZIP: 19477
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/218,025A
      FILING DATE: 24-MAR-1994
       CLASSIFICATION: 424
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/891,451
       FILING DATE: 29-MAY-1992
   ATTORNEY/AGENT INFORMATION:
      NAME: Bak, Mary E.
       REGISTRATION NUMBER: 31,215
       REFERENCE/DOCKET NUMBER: WST33A
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (215) 540-9206
       TELEFAX: (215) 540-5818
   INFORMATION FOR SEQ ID NO: 163:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: unknown
     MOLECULE TYPE: peptide
US-08-218-025A-163
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.4e+03;
             3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                          0;
  Matches
            1 AGS 3
Οv
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| | |

```
RESULT 49
US-08-280-397-6
; Sequence 6, Application US/08280397
; Patent No. 5589459
  GENERAL INFORMATION:
     APPLICANT: Porro, Massimo
    TITLE OF INVENTION: Synthetic Peptides for Detoxification
    TITLE OF INVENTION: of Bacterial Endotoxins and for the
    TITLE OF INVENTION: Prevention and Treatment of Septic
     TITLE OF INVENTION: Shock
    NUMBER OF SEQUENCES: 10
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Hedman, Gibson & Costigan, P.C.
       STREET: 1185 Avenue of the Americas
       CITY: New York
       STATE: New York
;
       COUNTRY: USA
;
       ZIP: 10036
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Diskette, 3.50 inch, 1.44 Mb storage
       COMPUTER: IBM PS/2
       OPERATING SYSTEM: DOS
;
       SOFTWARE: Word Perfect 5.1
     CURRENT APPLICATION DATA:
;
       APPLICATION NUMBER: US/08/280,397
;
       FILING DATE: 07/26/94
;
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 07/819,893
       FILING DATE: 01/16/92
     ATTORNEY/AGENT INFORMATION:
       NAME: Costigan, James V.
       REGISTRATION NUMBER: 25,669
       REFERENCE/DOCKET NUMBER: 576-002A
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 302-8989
       TELEFAX: (212) 302-8998
   INFORMATION FOR SEQ ID NO: 6:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: circular
US-08-280-397-6
                          27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.4e+03;
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             3; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
  Matches
            7 LKK 9
Qу
              111
            8 LKK 10
Db
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```
US-08-378-761A-68
; Sequence 68, Application US/08378761A
; Patent No. 5635384
  GENERAL INFORMATION:
    APPLICANT: WALSH, TERENCE A
;
    APPLICANT: HEY, TIMOTHY D
    APPLICANT: MORGAN, ALICE ER
    TITLE OF INVENTION: RIBOSOME-INACTIVATING PROTEINS, INACTIVE
    TITLE OF INVENTION: PRECURSOR FORMS THEREOF, A PROCESS FOR MAKING A METHOD
OF
    TITLE OF INVENTION: USING
;
    NUMBER OF SEQUENCES: 81
;
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANDREA T. BORUCKI
      STREET: 9330 ZIONSVILLE ROAD
      CITY: INDIANAPOLIS
      STATE: IN
      COUNTRY: US
       ZIP: 46268
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/378,761A
       FILING DATE: 26-JAN-1995
       CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
     NAME: BORUCKI, ANDREA T
       REGISTRATION NUMBER: 33651
       REFERENCE/DOCKET NUMBER: 38272B
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (317) 337-4846
   INFORMATION FOR SEQ ID NO: 68:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: protein
US-08-378-761A-68
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
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            3; Conservative 0; Mismatches 0; Indels
  Matches
            9 KKA 11
Qу
             3 KKA 5
RESULT 51
US-08-485-286-68
; Sequence 68, Application US/08485286
; Patent No. 5646026
; Patent No. 5646026 5646119
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```
GENERAL INFORMATION:
    APPLICANT: WALSH, TERENCE A
    APPLICANT: HEY, TIMOTHY D
    APPLICANT: MORGAN, ALICE ER
    TITLE OF INVENTION: RIBOSOME-INACTIVATING PROTEINS, INACTIVE
    TITLE OF INVENTION: PRECURSOR FORMS THEREOF, A PROCESS FOR MAKING A METHOD
OF
    TITLE OF INVENTION: USING
;
    NUMBER OF SEQUENCES: 81
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANDREA T. BORUCKI
      STREET: 9330 ZIONSVILLE ROAD
      CITY: INDIANAPOLIS
      STATE: IN
      COUNTRY: US
      ZIP: 46268
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/485,286
      FILING DATE:
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US 08/378761
      FILING DATE: 26-JAN-1995
    ATTORNEY/AGENT INFORMATION:
     NAME: BORUCKI, ANDREA T
      REGISTRATION NUMBER: 33651
      REFERENCE/DOCKET NUMBER: 38272B
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (317) 337-4846
   INFORMATION FOR SEQ ID NO: 68:
   SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
     MOLECULE TYPE: protein
US-08-485-286-68
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.4e+03;
          3; Conservative 0; Mismatches 0; Indels 0; Gaps
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            9 KKA 11
Qу
             3 KKA 5
RESULT 52
US-08-299-249A-13
; Sequence 13, Application US/08299249A
; Patent No. 5650267
; GENERAL INFORMATION:
```

```
APPLICANT: RAY, Bryan L.; and
    APPLICANT: LIN, Edmund C.C.
    TITLE OF INVENTION: Method Of Detecting Compounds
    TITLE OF INVENTION: Utilizing Genetically Modified
                         Lambdoid Bacteriophage
    TITLE OF INVENTION:
    NUMBER OF SEQUENCES: 15
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: HALE and DORR
      STREET: 60 State Street
      CITY: Boston
      STATE: MA
      COUNTRY: U.S.A.
      ZIP: 02109
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/299,249A
      FILING DATE: 31-AUG-1994
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/053,865
       FILING DATE: 27-APR-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Kerner, Ann-Louise
       REGISTRATION NUMBER: 33,523
       REFERENCE/DOCKET NUMBER: SYZ-011FWC
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 617/526-6000
      TELEFAX: 617/526-5000
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
     HYPOTHETICAL: NO
US-08-299-249A-13
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
                         100.0%; Pred. No. 4.4e+03;
  Best Local Similarity
            3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
            1 AGS 3
Qу
             111
            3 AGS 5
RESULT 53
US-08-465-325-131
; Sequence 131, Application US/08465325
; Patent No. 5686563
; GENERAL INFORMATION:
```

```
APPLICANT: Magainin Pharmaceuticals Inc.
    APPLICANT: 5110 Campus Drive
    APPLICANT: Plymouth Meeting, PA 19462
    TITLE OF INVENTION: Biologically Active Peptides Having
    TITLE OF INVENTION: N-Terminal Substitutions
    NUMBER OF SEQUENCES: 153
;
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
      ADDRESSEE: Dunner
      STREET: 1300 I. Street, N.W. Suite 700
      CITY: Washington
      STATE: D.C.
      COUNTRY: USA
;
      ZIP: 20005-3315
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/465,325
      FILING DATE: 05-JUN-1995
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/184,462
      FILING DATE: 18-JAN-94
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/891,201
      FILING DATE: 01-JUN-92
    ATTORNEY/AGENT INFORMATION:
     NAME: Fordis, Jean B
      REGISTRATION NUMBER: 32,984
      REFERENCE/DOCKET NUMBER: 05387.0021-03000
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 408-4000
       TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 131:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-465-325-131
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.4e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
  Matches
           7 LKK 9
Qу
             \Box
Db
            1 LKK 3
RESULT 54
US-08-465-325-151
; Sequence 151, Application US/08465325
```

```
; Patent No. 5686563
  GENERAL INFORMATION:
    APPLICANT: Magainin Pharmaceuticals Inc.
    APPLICANT: 5110 Campus Drive
    APPLICANT: Plymouth Meeting, PA 19462
;
    TITLE OF INVENTION: Biologically Active Peptides Having
    TITLE OF INVENTION: N-Terminal Substitutions
    NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
      ADDRESSEE: Dunner
      STREET: 1300 I. Street, N.W. Suite 700
      CITY: Washington
;
      STATE: D.C.
      COUNTRY: USA
      ZIP: 20005-3315
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/465,325
      FILING DATE: 05-JUN-1995
      CLASSIFICATION: 514
    'PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
                           08/184,462
       FILING DATE: 18-JAN-94
    PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 07/891,201
       FILING DATE: 01-JUN-92
    ATTORNEY/AGENT INFORMATION:
      NAME: Fordis, Jean B
       REGISTRATION NUMBER: 32,984
      REFERENCE/DOCKET NUMBER: 05387.0021-03000
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 408-4000
       TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 151:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-465-325-151
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.4e+03;
          3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                            0:
            7 LKK 9
Qу
              \pm 111
            1 LKK 3
```

```
US-08-449-207-2
; Sequence 2, Application US/08449207
; Patent No. 5714313
  GENERAL INFORMATION:
    APPLICANT: Garfinkel, David J.
    APPLICANT: Nissley, Dwight V.
    APPLICANT: Curcio, Joan M.
    APPLICANT: Strathern, Jeffrey N.
    TITLE OF INVENTION: SIMPLE METHOD FOR DETECTING INHIBITORS
    TITLE OF INVENTION: OF RETROVIRAL REPLICATION
    NUMBER OF SEQUENCES: 4
;
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NEEDLE & ROSENBERG, P.C.
      STREET: Suite 1200, 127 Peachtree Street
      CITY: Atlanta
      STATE: GA
      COUNTRY: U.S.A.
      ZIP: 30303-1811
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/449,207
       FILING DATE: 24-MAY-1995
       CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
;
     NAME: Selby, Elizabeth
       REGISTRATION NUMBER: 38,298
       REFERENCE/DOCKET NUMBER: 14014.0144
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (404) 688-0770
       TELEFAX: (404) 688-9880
   INFORMATION FOR SEQ ID NO: 2:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: not relevant
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-449-207-2
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.4e+03;
            3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                            0;
  Matches
            4 AVK 6
Qу
             -111
            6 AVK 8
Db
RESULT 56
US-08-156-552A-17
; Sequence 17, Application US/08156552A
; Patent No. 5726155
; GENERAL INFORMATION:
```

```
APPLICANT:
                Bokoch, Gary M
    APPLICANT: Curnutte, John T
    TITLE OF INVENTION: REGULATION OF OXIDATIVE BURST USING
    TITLE OF INVENTION: LMWG-DERIVED PEPTIDES AND ANALOGS
    NUMBER OF SEQUENCES: 31
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: The Scripps Research Institute, Office of
      ADDRESSEE: Patent Counsel
      STREET: 10666 No. 5726155th Torrey Pines Road, TPC 8
      CITY: La Jolla
      STATE: CA
      COUNTRY: USA
      ZIP: 92037
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
                PatentIn Release #1.0, Version #1.25
      SOFTWARE:
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/156,552A
      FILING DATE: 15-NOV-1993
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/102,944
      FILING DATE: 02-AUG-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Logan, April C.
      REGISTRATION NUMBER: 33,950
      REFERENCE/DOCKET NUMBER: SCRF 281.1
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 619-554-2937
      TELEFAX: 619-554-6312
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-156-552A-17
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
                         100.0%; Pred. No. 4.4e+03;
  Best Local Similarity
                                                                            0;
                              0; Mismatches
                                                0; Indels
                                                                0; Gaps
           3; Conservative
 Matches
            6 KLK 8
Qy
             \perp
Db
            2 KLK 4
RESULT 57
US-08-416-035-8
; Sequence 8, Application US/08416035
; Patent No. 5739278
  GENERAL INFORMATION:
     APPLICANT: Daum, Gunter
     APPLICANT: Cool, Deborah E.
     APPLICANT: Fischer, Edmond H.
```

```
TITLE OF INVENTION: Methods and Compositions for Protein
    TITLE OF INVENTION: Tyrosine Phosphatases
    NUMBER OF SEQUENCES: 9
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Seed and Berry
      STREET: 6300 Columbia Center, 701 Fifth Avenue
      CITY: Seattle
      STATE: Washington
      COUNTRY: USA
      ZIP: 98104
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/416,035
      FILING DATE: 30-MAR-1995
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/059,949
      FILING DATE: 10-MAY-1993
    ATTORNEY/AGENT INFORMATION:
    NAME: Sharkey, Richard G.
      REGISTRATION NUMBER: 32,629
      REFERENCE/DOCKET NUMBER: 940010.531
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (206) 622-4900
      TELEFAX: (206) 682-6031
      TELEX: 3723836
  INFORMATION FOR SEQ ID NO: 8:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-416-035-8
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 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Db
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RESULT 58
US-08-552-907-16
; Sequence 16, Application US/08552907
; Patent No. 5744299
; GENERAL INFORMATION:
     APPLICANT: Henrickson, Kelly J.
     APPLICANT: Fan, Jiang (n.m.i.)
    TITLE OF INVENTION: HUMAN PARAINFLUENZA VIRUS-1 ASSAY
    NUMBER OF SEQUENCES: 29
    CORRESPONDENCE ADDRESS:
```

```
ADDRESSEE: Quarles & Brady
      STREET: 411 East Wisconsin Avenue
      CITY: Milwaukee
      STATE: Wisconsin
      COUNTRY: U.S.A.
      ZIP: 53202-4497
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/552,907
      FILING DATE:
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Baker, Jean C.
      REGISTRATION NUMBER: 35,433
      REFERENCE/DOCKET NUMBER: 650053.91037
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (414) 277-5000
       TELEFAX: (414) 271-3552
  INFORMATION FOR SEQ ID NO: 16:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-552-907-16
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 Best Local Similarity 100.0%; Pred. No. 4.4e+03;
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                                                                             0;
           7 LKK 9
Qy
             \perp
            2 LKK 4
Db
RESULT 59
US-08-443-568B-21
; Sequence 21, Application US/08443568B
; Patent No. 5759807
  GENERAL INFORMATION:
    APPLICANT: Breece, Tim APPLICANT: Hayenga, Kirk
    APPLICANT: Rindersknecht, Ernst
    APPLICANT: Vandlen, Richard
    APPLICANT: Daniel, Yansura
     TITLE OF INVENTION: Process for Producing Relaxin
    NUMBER OF SEQUENCES: 47
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Pennie & Edmonds LLP
      STREET: 1155 Avenue of the Americas
      CITY: New York
       STATE: New York
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COUNTRY: U.S.A.
      ZIP: 10036
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/443,568B
      FILING DATE: 22-MAY-1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/080,354
      FILING DATE: 21-JUNE-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Abrams, Samuel B.
      REGISTRATION NUMBER: 30,605
      REFERENCE/DOCKET NUMBER: 7842-037
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 650-493-4935
      TELEFAX: 650-493-5556
      TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 21:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: unknown
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-443-568B-21
                          27.3%; Score 3; DB 1; Length 11;
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  Best Local Similarity
                          100.0%; Pred. No. 4.4e+03;
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                                                   0; Indels 0; Gaps
                                                                             0;
 Matches
            7 LKK 9
Qy
              \perp
            9 LKK 11
Db
RESULT 60
US-08-542-363-21
; Sequence 21, Application US/08542363
; Patent No. 5770421
  GENERAL INFORMATION:
    APPLICANT: Morris, Stephan W.
    APPLICANT: Look, A. Thomas
    TITLE OF INVENTION: ALK Protein Tyrosine Kinase/Receptor and
     TITLE OF INVENTION: Ligands Thereof
    NUMBER OF SEQUENCES: 43
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
       STREET: 1100 New York Avenue, N.W., Suite 600
       CITY: Washington
       STATE: DC
       COUNTRY: USA
```

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ZIP: 20005
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/542,363
      FILING DATE: 12-OCT-1995
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
     NAME: Fox, Samuel L.
      REGISTRATION NUMBER: 30,353
      REFERENCE/DOCKET NUMBER: 0656.0400001/SLF/GKT
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-371-2600
      TELEFAX: 202-371-2540
  INFORMATION FOR SEQ ID NO: 21:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-542-363-21
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.4e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                          0;
 Matches
           4 AVK 6
Qу
             5 AVK 7
Db
RESULT 61
US-08-248-357C-6
; Sequence 6, Application US/08248357C
; Patent No. 5773225
; GENERAL INFORMATION:
    APPLICANT: Luban, Jeremy
    APPLICANT: Goff, Stephen P.
    TITLE OF INVENTION: Screening Method for the Identification of
Compou
    TITLE OF INVENTION: Formation
    NUMBER OF SEQUENCES: 12
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Cooper & Dunham LLP
      STREET: 1185 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036
    COMPUTER READABLE FORM:
     MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
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SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/248,357C
       FILING DATE: 24-MAY-1994
;
      CLASSIFICATION: 435
;
    ATTORNEY/AGENT INFORMATION:
      NAME: White, John P.
       REGISTRATION NUMBER: 28,678
       REFERENCE/DOCKET NUMBER: 44010
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 212-278-0400
      TELEFAX: 212-391-0525
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: amino acid
US-08-248-357C-6
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  Query Match
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            1 AGS 3
Qу
              111
            7 AGS 9
Db
RESULT 62
US-08-082-269D-2
; Sequence 2, Application US/08082269D
; Patent No. 5773227
   GENERAL INFORMATION:
     APPLICANT: Kuhn, Michael
     APPLICANT: Meyer, Tobias
APPLICANT: Allbritton, Nancy
     TITLE OF INVENTION: Bifunctional Chelating Polysaccharides
     NUMBER OF SEQUENCES: 9
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Molecular Probes, Inc.
       STREET: 4849 Pitchford Avenue
       CITY: Eugene
       STATE: Oregon
       COUNTRY: USA
;
       ZIP: 97402-9144
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Diskette, 3.5 inch
       COMPUTER: IBM
       OPERATING SYSTEM: MS-DOS 6.2
       SOFTWARE: Text Editor
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/082,269D
       FILING DATE: 23-June-1993
       CLASSIFICATION: 435
     ATTORNEY/AGENT INFORMATION:
```

```
NAME: Helfenstein, Allegra J.
      REGISTRATION NUMBER: 34,179
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (503) 465-8300
      TELEFAX: (503)344-6504
;
  INFORMATION FOR SEQ ID NO: 2:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 AMINO ACIDS
      TYPE: Amino Acid
      TOPOLOGY: Linear
    MOLECULE TYPE: Peptide
    HYPOTHETICAL: no
    FRAGMENT TYPE:
     PUBLICATION INFORMATION:
      AUTHORS: Chelsky, Daniel, Ralph, Rebecca and Jonak, Gerald
      TITLE: Sequence Requirements for Synthetic Peptide-Mediated
Translocation to the
; Patent No. 5773227
       JOURNAL: Molecular and Cellular Biology
      VOLUME: 9
      ISSUE: 6
      PAGES: 2487-2492
      DATE: 1989
US-08-082-269D-2
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  Matches
           8 KKK 10
Qу
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Db
RESULT 63
US-08-218-026-50
; Sequence 50, Application US/08218026
; Patent No. 5786324
  GENERAL INFORMATION:
     APPLICANT: Gray, Beulah
     APPLICANT: Haseman, Judith R.
     APPLICANT: Mayo, Kevin
;
     TITLE OF INVENTION: Synthetic Peptides with Bactericidal
     TITLE OF INVENTION: Activity and Endotoxin Neutralizing Activity for Gram
     TITLE OF INVENTION: Negative Bacteria and Methods for Their Use
     NUMBER OF SEQUENCES: 60
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Merchant & Gould
       STREET: 3100 No. 5786324west Center
       CITY: Minneapolis
       STATE: MN
       COUNTRY: USA
       ZIP: 55402
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
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SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/218,026
      FILING DATE: 24-MAR-1994
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
     NAME: Kowalchyk, Katherine M.
      REGISTRATION NUMBER: 36,848
      REFERENCE/DOCKET NUMBER: 600.286US01
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 612-332-5300
      TELEFAX: 612-332-9081
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: circular
    MOLECULE TYPE: peptide
US-08-218-026-50
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           7 LKK 9
Qу
             111
           8 LKK 10
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RESULT 64
US-08-856-053-17
; Sequence 17, Application US/08856053
; Patent No. 5807827
  GENERAL INFORMATION:
     APPLICANT: Lee, Nancy M.
     APPLICANT: Loh, Horace H.
     APPLICANT: Takemori, Akira E.
     TITLE OF INVENTION: DES-TYR DYNORPHIN ANALOGUES
     NUMBER OF SEQUENCES: 23
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Majestic, Parsons, Siebert & Hsue
       STREET: Four Embarcadero Center, Suite 1450
       CITY: San Francisco
       STATE: California
       COUNTRY: U.S.A.
       ZIP: 94111-4121
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/856,053
       FILING DATE:
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 07/897,920
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FILING DATE: 12-JUN-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Siebert, J. Suzanne
      REGISTRATION NUMBER: 28,758
      REFERENCE/DOCKET NUMBER: 2995.1
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 362-5556
      TELEFAX: (415) 362-5418
      TELEX: 278638 MGPS
  INFORMATION FOR SEQ ID NO: 17:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
    ORIGINAL SOURCE:
      ORGANISM: porcine
US-08-856-053-17
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Qу
             -111
            9 KLK 11
Db
RESULT 65
US-08-478-386A-59
; Sequence 59, Application US/08478386A
; Patent No. 5830462
; GENERAL INFORMATION:
     APPLICANT: Crabtree, Gerald R.
    APPLICANT: Schreiber, Stuart L. APPLICANT: Spencer, David M.
    APPLICANT: Wandless, Thomas J.
     APPLICANT: Belshaw, Peter
     TITLE OF INVENTION: REGULATED TRANSCRIPTION OF TARGETED
     TITLE OF INVENTION: GENES AND OTHER BIOLOGICAL EVENTS
     NUMBER OF SEQUENCES: 81
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: ARIAD Pharmaceuticals, Inc.
       STREET: 26 Landsdowne Street
       CITY: Cambridge
       STATE: Massachusetts
       COUNTRY: USA
       ZIP: 02139
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC/DOS/MS/DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/478,386A
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FILING DATE: 07/JUN/1995
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
      NAME: Figg, E. Anthony
      REGISTRATION NUMBER: 27,195
;
      REFERENCE/DOCKET NUMBER: 2054-114A
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 783-6040
      TELEFAX: (202) 783-6031
  INFORMATION FOR SEQ ID NO: 59:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Peptide
      LOCATION: 1..11
      OTHER INFORMATION: /note= "Translation product of SEQ ID
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US-08-478-386A-59
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            8 KKK 10
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             111
Db
            4 KKK 6
RESULT 66
US-08-653-632-50
; Sequence 50, Application US/08653632
; Patent No. 5830860
  GENERAL INFORMATION:
    APPLICANT: GRAY, Beulah
    APPLICANT: HASEMAN, Judith R.
    APPLICANT: MAYO, Kevin
    TITLE OF INVENTION: PEPTIDES WITH BACTERICIDAL AND ENDOTOXIN NEUTRALIZING
    NUMBER OF SEQUENCES: 66
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Merchant, Gould, Smith, Edell, Welter & Schmidt
       STREET: 3100 No. 5830860west Center, 90 South Seventh St
       CITY: Minneapolis
       STATE: MN
       COUNTRY: USA
       ZIP: 55402
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Diskette
       COMPUTER: IBM Compatible
       OPERATING SYSTEM: DOS
       SOFTWARE: FastSEQ Version 1.5
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/653,632
      FILING DATE: 24-MAY-1996
      CLASSIFICATION: 514
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PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/218026
      FILING DATE: 24-MAR-1994
    ATTORNEY/AGENT INFORMATION:
      NAME: Kettelberger, Denise M
      REGISTRATION NUMBER: 33,924
      REFERENCE/DOCKET NUMBER: 600.286USI1
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 612/371-5268
      TELEFAX: 612/332-9081
      TELEX:
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
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    FRAGMENT TYPE: internal
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US-08-653-632-50
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           7 LKK 9
Qу
             8 LKK 10
Db
RESULT 67
US-08-292-597-59
; Sequence 59, Application US/08292597
; Patent No. 5834266
  GENERAL INFORMATION:
    APPLICANT: Gerald R. Crabtree
    APPLICANT: Schreiber, Stuart L.
    APPLICANT: Spencer, David M.
    APPLICANT: Wandless, Thomas J.
    APPLICANT: Belshaw, Peter
    TITLE OF INVENTION: Regulated Apoptosis
    NUMBER OF SEQUENCES: 81
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ARIAD Pharmaceuticals, Inc.
       STREET: 26 Landsdowne Street
       CITY: Cambridge
       STATE: Massachusetts
      COUNTRY: USA
       ZIP: 02139
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC/DOS/MS/DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
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CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/292,597
      FILING DATE: 18/AUG/1994
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Figg, E. Anthony
      REGISTRATION NUMBER: 27,195
      REFERENCE/DOCKET NUMBER: 2054-108A
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 783-6040
      TELEFAX: (202) 783-6031
  INFORMATION FOR SEQ ID NO: 59:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Peptide
      LOCATION: 1..11
      OTHER INFORMATION: /note= "Translation product of SEQ
      OTHER INFORMATION: ID NOS:58 and 60."
US-08-292-597-59
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.4e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
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           8 KKK 10
QУ
             Db
           4 KKK 6
RESULT 68
US-08-456-112B-35
; Sequence 35, Application US/08456112B
; Patent No. 5834430
  GENERAL INFORMATION:
    APPLICANT: Porro, Massimo
    TITLE OF INVENTION: POTENTIATION OF ANTIBIOTICS
    NUMBER OF SEQUENCES: 45
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Hedman, Gibson & Costigan
       STREET: 1185 Avenue of the Americas
       CITY: New York
       STATE: New York
       COUNTRY: USA
       ZIP: 10036
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette, 3.50 inch, 1.44 Mb storage
       COMPUTER: LEADING EDGE 486
       OPERATING SYSTEM: DOS
       SOFTWARE: Word Perfect 5.1
    CURRENT APPLICATION DATA:
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APPLICATION NUMBER: US/08/456,112B
       FILING DATE: May 31, 1995
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
       FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Costigan, James V.
      REGISTRATION NUMBER: 25,669
      REFERENCE/DOCKET NUMBER: 576-004
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 302-8989
      TELEFAX: (212) 302-8998
  INFORMATION FOR SEQ ID NO: 35:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: circular
US-08-456-112B-35
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.4e+03;
 Matches
          3; Conservative 0; Mismatches
                                               0; Indels
                                                               0; Gaps
           7 LKK 9
Qу
             111
           8 LKK 10
RESULT 69
US-08-701-124-19
; Sequence 19, Application US/08701124
; Patent No. 5846782
  GENERAL INFORMATION:
    APPLICANT: Wickham, Thomas J.
    APPLICANT: Roelvink, Petrus W.
    APPLICANT: Kovesdi, Imre
    TITLE OF INVENTION: TARGETING ADENOVIRUS WITH USE OF
    TITLE OF INVENTION: CONSTRAINED PEPTIDE MOTIFS
    NUMBER OF SEQUENCES: 80
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Leydig, Voit & Mayer, Ltd.
      STREET: Two Prudential Plaza - 49th Floor
      CITY: Chicago
      STATE: Illinois
      COUNTRY: USA
      ZIP: 60601
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/701,124
       FILING DATE: 21-AUG-1996
   INFORMATION FOR SEQ ID NO: 19:
    SEQUENCE CHARACTERISTICS:
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LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-701-124-19
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 Best Local Similarity 100.0%; Pred. No. 4.4e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
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QУ
              111
            3 KKK 5
Db
RESULT 70
US-08-618-696-5
; Sequence 5, Application US/08618696
; Patent No. 5861475
  GENERAL INFORMATION:
    APPLICANT: COOPER, Jr., J. ALLEN D.
    TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TITLE OF INVENTION: INHIBITION OF PHAGOCYTES
    NUMBER OF SEQUENCES: 21
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ARNOLD, WHITE & DURKEE
      STREET: P.O. BOX 4433
      CITY: HOUSTON
      STATE: TEXAS
      COUNTRY: USA
      ZIP: 77210
;
    COMPUTER READABLE FORM:
     MEDIUM TYPE: FLOPPY DISK
      COMPUTER: IBM PC COMPATIBLE
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: WORDPERFECT 5.1
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/618,696
      FILING DATE: 20-MAR-1996
;
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: 07/995,269
      FILING DATE: 12/21/92
;
    ATTORNEY/AGENT INFORMATION:
      NAME: PARKER, DAVID L.
;
       REGISTRATION NUMBER: 32,165
       REFERENCE/DOCKET NUMBER: UOAB:002/PAR
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: 512-320-7200
       TELEFAX: 512-474-7577
       TELEX: NOT APPLICABLE
   INFORMATION FOR SEQ ID NO: 5:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acid residues
       TYPE: amino acid
      STRANDEDNESS: single
     TOPOLOGY: linear
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Qу
            111
Db
           3 GSA 5
RESULT 71
US-08-618-696-18
; Sequence 18, Application US/08618696
; Patent No. 5861475
; GENERAL INFORMATION:
    APPLICANT: COOPER, Jr., J. ALLEN D.
    TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
    TITLE OF INVENTION: INHIBITION OF PHAGOCYTES
    NUMBER OF SEQUENCES: 21
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ARNOLD, WHITE & DURKEE
      STREET: P.O. BOX 4433
      CITY: HOUSTON
     STATE: TEXAS
      COUNTRY: USA
      ZIP: 77210
    COMPUTER READABLE FORM:
     MEDIUM TYPE: FLOPPY DISK
;
      COMPUTER: IBM PC COMPATIBLE
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
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      SOFTWARE: WORDPERFECT 5.1
   CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/618,696
      FILING DATE: 20-MAR-1996
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: 07/995,269
      FILING DATE: 12/21/92
    ATTORNEY/AGENT INFORMATION:
     NAME: PARKER, DAVID L.
      REGISTRATION NUMBER: 32,165
     REFERENCE/DOCKET NUMBER: UOAB:002/PAR
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 512-320-7200
      TELEFAX: 512-474-7577
;
      TELEX: NOT APPLICABLE
  INFORMATION FOR SEQ ID NO: 18:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acid residues
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
US-08-618-696-18
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Best Local Similarity 100.0%; Pred. No. 4.4e+03;

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 Matches
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Qу
              \mathbf{I}
           3 GSA 5
Db
RESULT 72
US-08-388-653-59
; Sequence 59, Application US/08388653
; Patent No. 5869337
  GENERAL INFORMATION:
    APPLICANT: Crabtree, Gerald R.
    APPLICANT: Schreiber, Stuart L.
    APPLICANT: Spencer, David M.
    APPLICANT: Wandless, Thomas J.
    APPLICANT: Belshaw, Peter
     TITLE OF INVENTION: REGULATED TRANSCRIPTION OF TARGETED
     TITLE OF INVENTION: GENES AND OTHER BIOLOGICAL EVENTS
    NUMBER OF SEQUENCES: 81
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ARIAD Pharmaceuticals, Inc.
      STREET: 26 Landsdowne Street
      CITY: Cambridge
       STATE: Massachusetts
       COUNTRY: USA
       ZIP: 02139
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC/DOS/MS/DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/388,653
       FILING DATE: 14-FEB-1995
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/478,386
       FILING DATE: 07-JUN-1995
     ATTORNEY/AGENT INFORMATION:
      NAME: Figg, E. Anthony
       REGISTRATION NUMBER: 27,195
       REFERENCE/DOCKET NUMBER: 2054-114A
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 783-6040
       TELEFAX: (202) 783-6031
   INFORMATION FOR SEQ ID NO: 59:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     FEATURE:
      NAME/KEY: Peptide
       LOCATION: 1..11
                          /note= "Translation product of SEQ ID
       OTHER INFORMATION:
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Qу
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           4 KKK 6
RESULT 73
US-08-473-985-59
; Sequence 59, Application US/08473985
; Patent No. 5871753
  GENERAL INFORMATION:
     APPLICANT: Crabtree, Gerald R.
     APPLICANT: Schreiber, Stuart L.
     APPLICANT: Spencer, David M.
     APPLICANT: Wandless, Thomas J.
     APPLICANT:
                Belshaw, Peter
     APPLICANT: Ho, Steffan
     TITLE OF INVENTION: Regulated Transcription of Targeted Genes and
     TITLE OF INVENTION: Other Biological Events
     NUMBER OF SEQUENCES: 66
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Campbell and Flores
       STREET: 4370 La Jolla Village Drive, Suite 700
       CITY: San Diego
       STATE: California
      COUNTRY: USA
       ZIP: 92122
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/473,985
      FILING DATE:
      CLASSIFICATION:
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 08/179,748
       FILING DATE: 07-JAN-1994
     ATTORNEY/AGENT INFORMATION:
      NAME: Campbell, Cathryn A.
       REGISTRATION NUMBER: 31,815
       REFERENCE/DOCKET NUMBER: P-SU 9863
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (619) 535-9001
       TELEFAX: (619) 535-8949
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
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      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
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FEATURE:
      NAME/KEY: Peptide
      LOCATION: 1..11
      OTHER INFORMATION: /note= "Translation product of SEQ
      OTHER INFORMATION: ID NOS:58 and 60."
US-08-473-985-59
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.4e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
 Matches
           8 KKK 10
Qу
             -111
Db
           4 KKK 6
RESULT 74
US-08-428-257A-54
; Sequence 54, Application US/08428257A
; Patent No. 5885808
  GENERAL INFORMATION:
    APPLICANT: Spooner, Robert A.
    APPLICANT: Epenetos, A.A.
    TITLE OF INVENTION: Compounds to target cells
    NUMBER OF SEQUENCES: 80
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Jules E. Goldberg
      STREET: 261 Madison Avenue
      CITY: New York
      STATE: NY
      COUNTRY: USA
      ZIP: 10016-2391
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/428,257A
      FILING DATE: 07/05/95
      CLASSIFICATION: 514
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-428-257A-54
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Qу
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            2 LKK 4
Db
```

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RESULT 75
US-08-537-400-31
; Sequence 31, Application US/08537400
; Patent No. 5939301
  GENERAL INFORMATION:
    APPLICANT:
    TITLE OF INVENTION: Cloned DNA Polymerases From Thermotoga
    TITLE OF INVENTION: neapolitana And Mutants Thereof
    NUMBER OF SEQUENCES: 37
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
      STREET: 1100 New York Avenue, N.W., Suite 600
      CITY: Washington
      STATE: DC
      COUNTRY: USA
      ZIP: 20005
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/537,400
      FILING DATE: 02-OCT-1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/316,423
      FILING DATE: 30-SEP-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/370,190
      FILING DATE: 09-JAN-1995
    ATTORNEY/AGENT INFORMATION:
      NAME: Esmond, Robert W.
      REGISTRATION NUMBER: 32,893
      REFERENCE/DOCKET NUMBER:
                               0942.2800002
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-371-2600
      TELEFAX: 202-371-2540
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-537-400-31
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                         27.3%; Score 3; DB 2; Length 11;
 Best Local Similarity 100.0%; Pred. No. 4.4e+03;
           3; Conservative 0; Mismatches
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Qу
           7 LKK 9
             III
Db
           6 LKK 8
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Search completed: April 8, 2004, 15:52:08

Job time: 13.3077 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:07; Search time 8.61538 Seconds

(without alignments)

122.816 Million cell updates/sec

Title: US-09-787-443A-4

Perfect score: 11

Sequence: 1 AGSAVKLKKKA 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 283366 seqs, 96191526 residues

Word size :

Total number of hits satisfying chosen parameters:

226

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: PIR_78:*

1: pir1:*

2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		8				
Result No.	Score	Query Match	Length	DB	ID	Description
1	3	27.3	11	2	A44755	20alpha-hydroxyste
2	3	27.3	11	2	S33519	probable secreted
3	3	27.3	11	2	D57789	gallbladder stone
4	3	27.3	11.	2	PH0941	T-cell receptor be
5	3	27.3	11	2	PU0034	dextransucrase (EC
6	2	18.2	11	1	LFTWWE	probable trpEG lea
7	2	18.2	11	2	S66196	alcohol dehydrogen
8	2	18.2	11	2	A33917	dihydroorotase (EC
9	2	18.2	11	2	A38841	rhodopsin homolog
10	2	18.2	11	2	YHRT	morphogenetic neur
11	2	18.2	11	2	YHHU	morphogenetic neur
12	2	18.2	11	2	YHBO	morphogenetic neur
13	2	18.2	11	2	YHXAE	morphogenetic neur

14	2	18.2	11	2	YHJFHY	morphogenetic neur
15	2	18.2	11	2	B26744	megascoliakinin -
16	2	18.2	11	2	S42449	ant1 protein - pha
17	2	18.2	11	2	A58502	38K kidney stone p
18	2	18.2	11	2	F58501	43.5K bile stone p
19	2	18.2	11	2	JQ0395	hypothetical prote
20	2	18.2	11	2	s66606	quinoline 2-oxidor
21	2	18.2	11	2	S58244	pyrroloquinoline q
22	2	18.2	11	2	в43669	hypothetical prote
23	2	18.2	11	2	E41476	probable antigen 5
24	2	18.2	11	2	S70338	napin small chain
25	2	18.2	11	2	s19775	wound-induced prot
	2	18.2	11	2	A38590	transforming prote
26	2	18.2	11	2	A34135	DNA-binding protei
27			11	2	A61512	variant surface gl
28	2	18.2		2	S43626	cytochrome-c oxida
29	2	18.2	11	2		talin - chicken (f
30	2	18.2	11		D42965	gamma-interferon-i
31	2	18.2	11	2	S21727	Ig heavy chain CRD
32	2	18.2	11	2	PT0287	T cell receptor V-
33	2	18.2	11	2	S57575	
34	2	18.2	11	2	S51732	T-cell receptor al
35	2	18.2	11	2	A32428	amine oxidase (cop
36	2	18.2	11	2	A61483	pyridoxal kinase (
37	2	18.2	11	2	PD0442	NIPSNAP2 protein -
38	2	18.2	11	2	PN0044	protein kinase C i
39	2	18.2	11	2	PT0209	T-cell receptor al
40	2	18.2	11	2	PT0218	T-cell receptor be
41	2	18.2	11	2	D41946	T-cell receptor ga
42	2	18.2	11	2	B41946	T-cell receptor ga
43	2	18.2	11	2	C38887	T-cell receptor ga
44	2	18.2	11	2	141946	T-cell receptor ga
45	2	18.2	11	2	A49037	TcR gamma V-J regi
46	2	18.2	11	2	B49037	TcR gamma V-J regi
47	2	18.2	11	2	C49037	TcR gamma V-J regi
48	2	18.2	11	2	PD0441	translation elonga
49	2	18.2	11	2	s65377	cytochrome-c oxida
50	2	18.2	11	2	S09349	microtubule-associ
51	2	18.2	11	2	S18385	NADP-cytochrome P4
52	2	18.2	11	2	s78422	ribosomal protein
53	2	18.2	11	2	РН0939	T-cell receptor be
54	2	18.2	11	2	PH0940	T-cell receptor be
55	2	18.2	11	2	PH0947	T-cell receptor be
56	2	18.2	11	2	PC2254	cytochrome P450 3A
. 57	2	18.2	11	2	A34243	H-hyosophorin - Ja
58	2	18.2	11	2	H84082	hypothetical prote
59	2	18.2	11	4	152708	ELAV-like neuronal
60	2	18.2	11	4	154081	retinoic acid rece
61	1	9.1	11	1	XAVIBH	bradykinin-potenti
	1	9.1	11	1	XASNBA	bradykinin-potenti
62				1	ECLQ2M	tachykinin II - mi
63 64	1	9.1	11 11	1	SPHO	substance P - hors
64	1	9.1			EOOCC	eledoisin - curled
65	1	9.1	11	1		substance P - guin
66	1	9.1	11	1	A60654	eledoisin - musky
67	1	9.1	11	1	EOOC	eledoisin - musky leucosulfakinin -
68	1	9.1	11	1	GMROL	
69	1	9.1	11	2	G42762	proteasome endopep
70	1	9.1	11	2	S68392	H+-transporting tw

71	1	9.1	11	2	В49164	chromogranin-B - r
72	1	9.1	11	2	JN0023	substance P - chic
73	1	9.1	11	2	S32575	ribosomal protein
74	1	9.1	11	2	A40693	transgelin - sheep
75	1	9.1	11	2	PQ0682	photosystem I 17.5
76	1	9.1	11	2	S00616	parasporal crystal
77	1	9.1	11	2	C53652	rhlR protein - Pse
78	1	9.1	11	2	S09074	cytochrome P450-4b
79	1	9.1	11	2	A57458	gene Gax protein -
80	1	9.1	11	2	A26930	ermG leader peptid
81	1	9.1	. 11	2	D60409	kassinin-like pept
82	1	9.1	11	2	F60409	substance P-like p
83	1	9.1	11	2	E60409	substance P-like p
84	1	9.1	11	2	A61365	phyllokinin – Rohd
85	1	9.1	11	2	S23308	substance P - rain
86	1	9.1	11	2	S23306	substance P - Atla
87	1	9.1	11	2	B60409	kassinin-like pept
88	1	9.1	11	2	C60409	kassinin-like pept
89	1	9.1	11	2	S07203	uperolein - frog (
90	1	9.1	11	2	S07207	Crinia-angiotensin
91	1	9.1	11	2	S07201	physalaemin – frog
92	1	9.1	11	2	A61033	ranatachykinin A -
93	1	9.1	11	2	D61033	ranatachykinin D -
94	1	9.1	11	2	B58501	24K kidney and bla
95	.1	9.1	11	2	D58502	27K bile and gallb
96	1	9.1	11	2	C58501	42K bile stone pro
97	1	9.1	11	2	PQ0231	beta-glucosidase (
98	1	9.1	11	2	S04875	nifS protein - Bra
99	1	9.1	11	. 2	141138	acetyl ornithine d
100	1	9.1	11	2	S42587	celF protein - Esc

ALIGNMENTS

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RESULT 1
A44755
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20alpha-hydroxysteroid dehydrogenase (EC 1.1.1.149) - Clostridium scindens (fragment)

C; Species: Clostridium scindens

C;Date: 12-Mar-1993 #sequence_revision 12-Mar-1993 #text_change 17-Mar-1999 C;Accession: A44755

R; Krafft, A.E.; Hylemon, P.B.

J. Bacteriol. 171, 2925-2932, 1989

A; Title: Purification and characterization of a novel form of 20alpha-

hydroxysteroid dehydrogenase from Clostridium scindens.

A; Reference number: A44755; MUID: 89255043; PMID: 2722736

A; Accession: A44755

A; Molecule type: protein

A; Residues: 1-11 < KRA>

C; Comment: This enzyme was purified to homogeneity and shown to have 20alpha hydroxysteroid dehydrogenase activity in the presence of NADH or NADPH. The enzyme as purified lacked glyceraldehyde-3-phosphate dehydrogenase (GAPDH) activity although the fragment shows near identify to known GAPDH sequences. C; Keywords: homotetramer; NAD; NADP; oxidoreductase

Query Match

27.3%; Score 3; DB 2; Length 11;

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Qу
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Db
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S33519
probable secreted protein - Acholeplasma laidlawii (fragment)
C; Species: Acholeplasma laidlawii
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text change 22-Oct-1999
C; Accession: S33519
R; Boyer, M.J.; Jarhede, T.K.; Tegman, V.; Wieslander, A.
submitted to the EMBL Data Library, June 1993
A; Description: Sequence regions from Acholeplasma laidlawii which restore export
of beta-lactamase in Escherichia coli.
A; Reference number: S33518
A; Accession: S33519
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <BOY>
A; Cross-references: EMBL: Z22875; NID: g311706; PIDN: CAA80495.1; PID: g311708
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  Best Local Similarity
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  Matches
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Qу
              111
            3 KLK 5
Db
RESULT 3
D57789
gallbladder stone matrix protein, 14.5K - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 23-Feb-1996 #sequence revision 23-Feb-1996 #text change 23-Feb-1996
C; Accession: D57789
R; Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, February 1996
A; Description: The proteins of gallbladder stones.
A; Reference number: A57789
A; Accession: D57789
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <BIN>
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  Best Local Similarity
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  Matches
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                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                              0;
            1 AGS 3
Qу
              III
Db
            7 AGS 9
```

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RESULT 4
PH0941
T-cell receptor beta chain V-D-J region (clone 12) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0941
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A: Accession: PH0941
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: complete Freund's adjuvant-immunized lymph node
C; Keywords: T-cell receptor
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            3 SAV 5
Qу
              111
            4 SAV 6
Db
RESULT 5
PU0034
dextransucrase (EC 2.4.1.5) - Streptococcus bovis (fragment)
C; Species: Streptococcus bovis
C; Date: 03-Feb-1994 #sequence revision 03-Feb-1994 #text change 18-Sep-1996
C; Accession: PU0034
R; Uezono, Y.; Tsumori, H.; Mukasa, H.
submitted to JIPID, October 1993
A; Description: Purification and properties of glucosyltransferase synthesizing
1,6-alpha-D-glucan from Streptococcus bovis.
A: Reference number: PU0034
A: Accession: PU0034
A; Molecule type: protein
A; Residues: 1-11 <UEZ>
A; Experimental source: ATCC 9809
C; Keywords: glycosyltransferase; hexosyltransferase
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                                                                  0; Gaps
                                 0; Mismatches
                                                    0;
                                                       Indels
  Matches
             3; Conservative
            3 SAV 5
Qу
              111
            4 SAV 6
Dh
RESULT 6
LFTWWE
probable trpEG leader peptide - Thermus aquaticus
C; Species: Thermus aquaticus
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C;Date: 30-Jun-1991 #sequence revision 30-Jun-1991 #text change 16-Jul-1999
C; Accession: S03315
R; Sato, S.; Nakada, Y.; Kanaya, S.; Tanaka, T.
Biochim. Biophys. Acta 950, 303-312, 1988
A; Title: Molecular cloning and nucleotide sequence of Thermus thermophilus HB8
trpE and trpG.
A; Reference number: S03315; MUID: 89000781; PMID: 2844259
A: Accession: S03315
A; Molecule type: DNA
A; Residues: 1-11 <SAT>
A; Cross-references: EMBL: X07744; NID: g48261; PIDN: CAA30565.1; PID: g48262
A; Note: the source is designated as Thermus thermophilus HB8
C; Genetics:
A; Gene: trpL
C; Superfamily: probable trpEG leader peptide
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4e+04;
                                0; Mismatches
                                                                              0;
                                                 0; Indels
                                                                      Gaps
             2; Conservative
  Matches
            3 SA 4
Qу
              11
            5 SA 6
Db
RESULT 7
S66196
alcohol dehydrogenase (EC 1.1.1.1) class III high affinity form - cod (Gadus
sp.) (fragment)
C; Species: Gadus sp. (cod)
C; Date: 14-Feb-1997 #sequence revision 13-Mar-1997 #text change 12-Jun-1998
C; Accession: S66196
R; Hjelmqvist, L.; Hackett, M.; Shafqat, J.; Danielsson, O.; Iida, J.;
Hendrickson, R.C.; Michel, H.; Shabanowitz, J.; Hunt, D.F.; Joernvall, H.
FEBS Lett. 367, 237-240, 1995
A; Title: Multiplicity of N-terminal structures of medium-chain alcohol
dehydrogenases. Mass-spectrometric analysis of plant, lower vertebrate and
higher vertebrate class I, II, and III forms of the enzyme.
A; Reference number: S66191; MUID: 95331382; PMID: 7607314
A; Accession: S66196
A; Molecule type: protein
A; Residues: 1-11 <HJE>
C; Superfamily: alcohol dehydrogenase; long-chain alcohol dehydrogenase homology
C; Keywords: alcohol metabolism; NAD; oxidoreductase
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                                                  0; Gaps
                                                                               0;
             2; Conservative
                                0; Mismatches
                                                    0; Indels
  Matches
            4 AV 5
Qу
              11
            7 AV 8
Db
RESULT 8
A33917
dihydroorotase (EC 3.5.2.3) - Chinese hamster (fragment)
```

```
C; Species: Cricetulus griseus (Chinese hamster)
C;Date: 09-Mar-1990 #sequence revision 09-Mar-1990 #text change 07-Nov-1997
C; Accession: A33917
R; Simmer, J.P.; Kelly, R.E.; Scully, J.L.; Grayson, D.R.; Rinker Jr., A.G.;
Bergh, S.T.; Evans, D.R.
Proc. Natl. Acad. Sci. U.S.A. 86, 4382-4386, 1989
A; Title: Mammalian aspartate transcarbamylase (ATCase): sequence of the ATCase
domain and interdomain linker in the CAD multifunctional polypeptide and
properties of the isolated domain.
A; Reference number: A33917; MUID: 89282776; PMID: 2543974
A; Accession: A33917
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-11 <SIM>
A; Cross-references: GB:M23652
C; Superfamily: rudimentary enzyme; aspartate/ornithine carbamoyltransferase
homology; Bacillus dihydroorotase homology; biotin carboxylase homology;
carbamoyl-phosphate synthase (ammonia) homology; carbamoyl-phosphate synthase
(glutamine-hydrolyzing) large chain homology; carbamoyl-phosphate synthase
(glutamine-hydrolyzing) small chain homology; trpG homology
C; Keywords: hydrolase
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                0; Mismatches 0; Indels
                                                                              0;
                                                                  0; Gaps
            2; Conservative
  Matches
            5 VK 6
Qу
              11
            6'VK 7
Db
RESULT 9
A38841
rhodopsin homolog - squid (Watasenia scintillans) (fragment)
N; Alternate names: visual pigment protein
C; Species: Watasenia scintillans (sparkling enope)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text change 31-Oct-1997
C:Accession: A38841
R; Seidou, M.; Kubota, I.; Hiraki, K.; Kito, Y.
Biochim. Biophys. Acta 957, 318-321, 1988
A; Title: Amino acid sequence of the retinal binding site of squid visual
pigment.
A; Reference number: PT0063; MUID: 89051045; PMID: 3191148
A; Accession: A38841
A; Molecule type: protein
A; Residues: 1-11 <SEI>
C; Superfamily: vertebrate rhodopsin
C; Keywords: chromoprotein; retinal
F;3/Binding site: retinal (Lys) (covalent) #status experimental
                           18.2%; Score 2; DB 2;
  Query Match
                           100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
             2; Conservative
            3 SA 4
Qy
              \perp
Db
            5 SA 6
```

```
RESULT 10
YHRT
morphogenetic neuropeptide - rat
C; Species: Rattus norvegicus (Norway rat)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C:Accession: A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: A01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator by the authors, because it induced head-specific growth
and differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; hypothalamus; intestine; neuropeptide;
pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                           18.2%; Score 2; DB 2; Length 11;
  Ouerv Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                                                               0;
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
  Matches
            2 GS 3
Qу
              11
            5 GS 6
Db
RESULT 11
UHHY
morphogenetic neuropeptide - human
C; Species: Homo sapiens (man)
C;Date: 20-Jun-2000 #sequence_revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: B01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: B01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
```

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A; Reference number: A91296; MUID:82050803; PMID:7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
neuropeptide
F;1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic
acid) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                                                              0;
                                                   0; Indels
                                                                  0; Gaps
            2; Conservative
                                 0; Mismatches
            2 GS 3
Qу
            5 GS 6
Db
RESULT 12
YHBO
morphogenetic neuropeptide - bovine
C; Species: Bos primigenius taurus (cattle)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: C01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: C01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
neuropeptide
F;1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic
acid) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
```

A; Title: Synthesis of a new neuropeptide, the head activator from hydra.

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2; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
  Matches
            2 GS 3
Qу
              \perp1
Db
            5 GS 6
RESULT 13
YHXAE
morphogenetic neuropeptide - sea anemone (Anthopleura elegantissima)
N; Alternate names: head activator
C; Species: Anthopleura elegantissima
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: A93900; A01427
R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hvdra.
A; Reference number: A93900
A; Accession: A93900
A; Molecule type: protein
A; Residues: 1-11 <SCH>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             2; Conservative
                              0; Mismatches
            2 GS 3
Qу
              - 1 1
            5 GS 6
Db
RESULT 14
YHJFHY
morphogenetic neuropeptide - Hydra attenuata
N; Alternate names: head activator
C; Species: Hydra attenuata
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: B93900; A01427
R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hydra.
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A: Accession: B93900
A; Molecule type: protein
A; Residues: 1-11 <SCH>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                                                              0;
             2; Conservative
                                 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
            2 GS 3
Qу
              5 GS 6
RESULT 15
B26744
megascoliakinin - garden dagger wasp
N; Alternate names: 6-Thr-bradykinin-Lys-Ala
C; Species: Megascolia flavifrons (garden dagger wasp)
C;Date: 08-Mar-1989 #sequence revision 08-Mar-1989 #text change 18-Aug-2000
C; Accession: B26744; A28609
R; Yasuhara, T.; Mantel, P.; Nakajima, T.; Piek, T.
Toxicon 25, 527-535, 1987
A; Title: Two kinins isolated from an extract of the venom reservoirs of the
solitary wasp Megascolia flavifrons.
A; Reference number: A94322; MUID: 87293024; PMID: 3617088
A; Accession: B26744
A; Molecule type: protein
A; Residues: 1-11 <YAS>
R; Nakajima, T.; Piek, T.; Yashuara, T.; Mantel, P.
Toxicon 26, 34, 1988
A; Title: Two kinins isolated from the venom of Megascolia flavifrons.
A; Reference number: A28609
A; Accession: A28609
A; Molecule type: protein
A; Residues: 1-11 < NAK>
C; Superfamily: unassigned animal peptides
C; Keywords: bradykinin; presynaptic neurotoxin; venom
  Query Match
                           18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 4e+04;
                                                                      Gaps
                                                                               0;
             2; Conservative
                                0; Mismatches
                                                    0; Indels
```

A; Reference number: A93900

```
10 KA 11
Qу
              \mathbf{H}
           10 KA 11
Db
RESULT 16
S42449
ant1 protein - phage P7
C; Species: phage P7
C;Date: 07-Sep-1994 #sequence revision 26-May-1995 #text change 08-Oct-1999
C; Accession: S42449
R; Citron, M.; Schuster, H.
Cell 62, 591-598, 1990
A; Title: The c4 repressors of bacteriophages P1 and P7 are antisense RNAs.
A; Reference number: S42448; MUID: 90335968; PMID: 1696181
A; Accession: S42449
A; Status: preliminary; translation not shown
A; Molecule type: DNA
A; Residues: 1-11 <CIT>
A; Cross-references: EMBL: M35139; NID: g215705; PIDN: AAA32437.1; PID: g215707
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                               0; Mismatches
                                                 0; Indels
          2; Conservative
                                                                  0; Gaps
                                                                              0;
            8 KK 9
Qу
              - 1 1
            2 KK 3
Db
RESULT 17
A58502
38K kidney stone protein - unidentified bacterium (fragment)
C; Species: unidentified bacterium
C;Date: 07-Feb-1997 #sequence revision 07-Feb-1997 #text change 10-Jul-1998
C; Accession: A58502
R; Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, October 1996
A; Description: The proteins of kidney and gallbladder stones.
A; Reference number: A58501
A; Accession: A58502
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <BIN>
A; Experimental source: human kidney stone containing Ca ox.mono and dihyd, 1\%
struvite, CaPO4 carbonate & hydrox., and 4% protein
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 4e+04;
            2; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AG 2
Qу
              11
Db
            6 AG 7
```

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F58501
43.5K bile stone protein - unidentified bacterium (fragment)
C; Species: unidentified bacterium
C; Date: 07-Feb-1997 #sequence revision 07-Feb-1997 #text_change 10-Jul-1998
C; Accession: F58501
R; Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, October 1996
A; Description: The proteins of kidney and gallbladder stones.
A: Reference number: A58501
A; Accession: F58501
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <BIN>
A; Experimental source: human bile with stones
A; Note: 6-Asn and 8-Ala were also found
                          18.2%; Score 2; DB 2; Length 11;
  Ouery Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
             2; Conservative
                               0; Mismatches
  Matches
            5 VK 6
Qу
              11
            2 VK 3
Db
RESULT 19
JQ0395
hypothetical protein (nodB 3' region) - Azorhizobium caulinodans
N; Alternate names: hypothetical 1.4K protein
C; Species: Azorhizobium caulinodans
A; Note: host Sesbania rostrata
C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 03-Feb-1994
C; Accession: JQ0395
R; Goethals, K.; Gao, M.; Tomekpe, K.; Van Montagu, M.; Holsters, M.
Mol. Gen. Genet. 219, 289-298, 1989
A; Title: Common nodABC genes in Nod locus 1 of Azorhizobium caulinodans:
nucleotide sequence and plant-inducible expression.
A; Reference number: JQ0393; MUID: 90136519; PMID: 2615763
A: Accession: JQ0395
A; Molecule type: DNA
A; Residues: 1-11 <GOE>
A; Cross-references: GB:L18897
A; Experimental source: strain ORS571
  Query Match
                           18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                                   0; Indels
                                                                  0; Gaps
                                                                               0;
             2; Conservative
                                0; Mismatches
            8 KK 9
Qу
              11
Db
            6 KK 7
RESULT 20
S66606
quinoline 2-oxidoreductase alpha chain - Comamonas testosteroni (fragment)
C; Species: Comamonas testosteroni
```

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C;Date: 15-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 17-Mar-1999
C; Accession: S66606
R; Schach, S.; Tshisuaka, B.; Fetzner, S.; Lingens, F.
Eur. J. Biochem. 232, 536-544, 1995
A;Title: Quinoline 2-oxidoreductase and 2-oxo-1,2-dihydroquinoline 5,6-
dioxygenase from Comamonas testosteroni 63. The first two enzymes in quinoline
and 3-methylquinoline degradation.
A; Reference number: S66606; MUID: 96035889; PMID: 7556204
A; Accession: S66606
A; Molecule type: protein
A; Residues: 1-11 <SCH>
A; Experimental source: strain 63
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                                                              0;
                                                                  0; Gaps
                                0; Mismatches
                                                  0; Indels
             2; Conservative
            7 LK 8
Qу
            8 LK 9
RESULT 21
S58244
pyrroloquinoline quinone synthesis C - Pseudomonas fluorescens (fragment)
C; Species: Pseudomonas fluorescens
C;Date: 13-Jan-1996 #sequence revision 01-Mar-1996 #text change 08-Oct-1999
C; Accession: S58244
R; Schnider, U.; Keel, C.; Defago, G.; Haas, D.
submitted to the EMBL Data Library, May 1995
A; Description: Tn5-directed cloning of pqq genes from Pseudomonas fluorescens
CHAO: their involvement in the production of the antibiotic pyoluteorin.
A; Reference number: S58239
A; Accession: S58244
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <SCH>
A; Cross-references: EMBL: X87299; NID: g929799; PIDN: CAA60734.1; PID: g929806
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                                                               0;
                                                    0; Indels
                                                                  0; Gaps
             2; Conservative 0; Mismatches
  Matches
            3 SA 4
Qу
              \mathbf{I}
Db
            7 SA 8
RESULT 22
B43669
hypothetical protein (rhdA 5' region) - Synechococcus sp. (fragment)
C; Species: Synechococcus sp.
C;Date: 03-Mar-1993 #sequence revision 03-Mar-1993 #text_change 30-Sep-1993
C; Accession: B43669
R; Laudenbach, D.E.; Ehrhardt, D.; Green, L.; Grossman, A.
J. Bacteriol. 173, 2751-2760, 1991
```

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A; Title: Isolation and characterization of a sulfur-regulated gene encoding a
periplasmically localized protein with sequence similarity to rhodanese.
A; Reference number: A43669; MUID: 91210163; PMID: 1708376
A; Accession: B43669
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <LAU>
A; Cross-references: GB:M65244
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0:
  Matches
            2; Conservative
            3 SA 4
Qу
              \mathbf{H}
Db
            4 SA 5
RESULT 23
E41476
probable antigen 5 - Mycobacterium leprae (fragment)
C; Species: Mycobacterium leprae
C;Date: 10-Apr-1992 #sequence_revision 10-Apr-1992 #text change 18-Jun-1993
C; Accession: E41476
R; Hartskeerl, R.A.; van Rens, R.M.; Stabel, L.F.E.M.; de Wit, M.Y.L.; Klatser,
P.R.
Infect. Immun. 58, 2821-2827, 1990
A; Title: Selection and characterization of recombinant clones that produce
Mycobacterium leprae antigens recognized by antibodies in sera from household
contacts of leprosy patients.
A; Reference number: A41476; MUID: 90354041; PMID: 1696931
A; Accession: E41476
A; Status: preliminary; not compared with conceptual translation
A; Molecule type: DNA
A; Residues: 1-11 <HAR>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                               0;
            2 GS 3
Qγ
              II
            1 GS 2
RESULT 24
S70338
napin small chain S3A - Swedish turnip (fragment)
C; Species: Brassica napus var. rapifera (Swedish turnip, rutabaga)
C;Date: 19-Mar-1998 #sequence_revision 17-Apr-1998 #text change 07-May-1999
C; Accession: S70338
R; Neumann, G.M.; Condron, R.; Thomas, I.; Polya, G.M.
Biochim. Biophys. Acta 1295, 23-33, 1996
A; Title: Purification and sequencing of multiple forms of Brassica napus seed
napin small chains that are calmodulin antagonists and substrates for plant
calcium-dependent protein kinase.
A; Reference number: S70336; MUID: 96283790; PMID: 8679670
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A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <NEU>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2; Conservative
  Matches
            2 GS 3
Qу
              11
            6 GS 7
Db
RESULT 25
S19775
wound-induced protein - tomato (fragment)
C; Species: Lycopersicon esculentum (tomato)
C; Date: 30-Jun-1992 #sequence revision 30-Jun-1992 #text_change 09-Sep-1997
C; Accession: S19775
R; Parsons, B.L.
submitted to the EMBL Data Library, May 1991
A; Reference number: S19773
A; Accession: S19775
A; Molecule type: mRNA
A; Residues: 1-11 < PAR>
A; Cross-references: EMBL: X59884; NID: g19323; PID: g19324
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             2; Conservative
            8 KK 9
Qу
              11
            5 KK 6
Db
RESULT 26
A38590
transforming protein (Ddras) - slime mold (Dictyostelium discoideum) (fragment)
C; Species: Dictyostelium discoideum
C;Date: 18-Oct-1991 #sequence_revision 18-Oct-1991 #text_change 30-Sep-1993
C; Accession: A38590
R; Esch, R.K.; Firtel, R.A.
Genes Dev. 5, 9-21, 1991
A; Title: cAMP and cell sorting control the spatial expression of a
developmentally essential cell-type-specific ras gene in Dictyostelium.
A; Reference number: A38590; MUID: 91115102; PMID: 1703508
A; Accession: A38590
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <ESC>
A; Cross-references: GB:Z11804; GB:K02114; GB:X58190
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                                                               0;
             2; Conservative 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
  Matches
```

A; Accession: S70338

```
6 KL 7
Qу
              1.1
            5 KL 6
Db
RESULT 27
A34135
DNA-binding protein p - Crithidia fasciculata mitochondrion (fragment)
C; Species: mitochondrion Crithidia fasciculata
C;Date: 30-Sep-1991 #sequence revision 30-Sep-1991 #text change 07-Dec-1999
C; Accession: A34135
R; Tittawella, I.
FEBS Lett. 260, 57-61, 1990
A; Title: Kinetoplast DNA-aggregating proteins from the parasitic protozoan
Crithidia fasciculata.
A; Reference number: A34135
A; Accession: A34135
A; Molecule type: protein
A; Residues: 1-11 <TIT>
C; Genetics:
A; Genome: mitochondrion
A; Genetic code: SGC6
C; Keywords: mitochondrion
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
             2; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
            3 SA 4
Qу
              11
            5 SA 6
Db
RESULT 28
A61512
variant surface glycoprotein MITat 1.7 - Trypanosoma brucei (fragment)
C; Species: Trypanosoma brucei
C;Date: 28-Oct-1994 #sequence revision 28-Oct-1994 #text_change 07-May-1999
C; Accession: A61512
R; Holder, A.A.; Cross, G.A.M.
Mol. Biochem. Parasitol. 2, 135-150, 1981
A; Title: Glycopeptides from variant surface glycoproteins of Trypanosoma brucei.
C-terminal location of antigenically cross-reacting carbohydrate moieties.
A; Reference number: A61512; MUID: 81172836; PMID: 6163983
A; Accession: A61512
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <HOL>
C; Keywords: glycoprotein
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                                                               0;
             2; Conservative
                                  0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
            2 GS 3
Qу
```

```
RESULT 29
S43626
cytochrome-c oxidase (EC 1.9.3.1) chain Vb-H - trout (fragment)
C; Species: Salmo sp. (trout)
C; Date: 19-Mar-1997 #sequence revision 01-Aug-1997 #text_change 02-Jul-1998
C:Accession: S43626
R; Freund, R.; Kadenbach, B.
Eur. J. Biochem. 221, 1111-1116, 1994
A; Title: Identification of tissue-specific isoforms for subunits Vb and VIIa of
cytochrome c oxidase isolated from rainbow trout.
A; Reference number: S43624; MUID: 94237150; PMID: 8181469
A; Accession: S43626
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <FRE>
C; Keywords: electron transfer; membrane-associated complex; oxidoreductase;
respiratory chain; transmembrane protein
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                  0; Gaps
                                                                               0:
             2; Conservative
                                                    0; Indels
            7 LK 8
Qу
              11
            3 LK 4
Db
RESULT 30
D42965
talin - chicken (fragment)
C; Species: Gallus gallus (chicken)
C;Date: 05-Jan-1996 #sequence revision 05-Jan-1996 #text change 05-Jan-1996
C; Accession: D42965
R; Hagmann, J.; Grob, M.; Burger, M.M.
J. Biol. Chem. 267, 14424-14428, 1992
A; Title: The cytoskeletal protein talin is O-glycosylated.
A; Reference number: A42965; MUID: 92332560; PMID: 1629228
A; Accession: D42965
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <HAG>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                                                               0;
  Matches
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            1 AG 2
Qу
              \perp
Db
            9 AG 10
RESULT 31
S21727
gamma-interferon-induced protein IP-30 precursor - human (fragment)
```

```
C; Species: Homo sapiens (man)
C;Date: 22-Nov-1993 #sequence revision 13-Mar-1997 #text change 13-Mar-1997
C: Accession: S21727
R; Wei, M.L.; Cresswell, P.
Nature 356, 443-446, 1992
A; Title: HLA-A2 molecules in an antigen-processing mutant cell contain signal
sequence-derived peptides.
A; Reference number: S21727; MUID: 92212461; PMID: 1557127
A; Accession: S21727
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <WEI>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                              0; Mismatches
                                                                              0;
                                                 0; Indels
                                                                  0; Gaps
  Matches
           2; Conservative
            4 AV 5
Qу
            9 AV 10
Db
RESULT 32
PT0287
Iq heavy chain CRD3 region (clone 4-103) - human (fragment)
C; Species: Homo sapiens (man)
C; Date: 30-Sep-1993 #sequence revision 30-Sep-1993 #text change 16-Aug-1996
C; Accession: PT0287
R; Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A; Title: Preferential utilization of specific immunoglobulin heavy chain
diversity and joining segments in adult human peripheral blood B lymphocytes.
A; Reference number: PT0222; MUID: 91108337; PMID: 1899102
A; Accession: PT0287
A; Molecule type: DNA
A; Residues: 1-11 < YAM>
A; Experimental source: B lymphocyte
C; Keywords: heterotetramer; immunoglobulin
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 4e+04;
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
             2; Conservative 0; Mismatches
  Matches
            1 AG 2
Qу
              4 AG 5
Db
RESULT 33
S57575
T cell receptor V-J junctional alpha chain region - human (fragment)
C; Species: Homo sapiens (man)
C; Date: 19-Oct-1995 #sequence revision 17-Nov-1995 #text change 05-Nov-1999
C; Accession: S57575
R; Burrows, S.R.; Silins, S.L.; Moss, D.J.; Khanna, R.; Misko, I.S.; Argaet, V.P.
submitted to the EMBL Data Library, June 1995
```

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A; Description: T cell receptor repertoire for a viral epitope in humans is
diversified by tolerance to a background MHC antigen.
A; Reference number: S57494
A; Accession: S57575
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-11 <BUR>
A; Cross-references: EMBL:Z49953; NID:g887510; PIDN:CAA90224.1; PID:g887511
C: Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                                                              0;
            2; Conservative 0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
            6 KL 7
Qу
              II
            7 KL 8
Db
RESULT 34
s51732
T-cell receptor alpha chain joining region - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 07-May-1995 #sequence revision 01-Sep-1995 #text change 05-Nov-1999
C; Accession: S51732
R; Durinovic-Bello, I.; Steinle, A.; Ziegler, A.G.; Schendel, D.J.
submitted to the EMBL Data Library, November 1993
A; Reference number: S51732
A; Accession: S51732
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-11 <DUR>
A; Cross-references: EMBL: Z28343; NID: g607116; PIDN: CAA82197.1; PID: g607117
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4e+04;
             2; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            6 KL 7
QУ
              8 KL 9
Db
RESULT 35
A32428
amine oxidase (copper-containing) (EC 1.4.3.6) - pig (fragment)
C; Species: Sus scrofa domestica (domestic pig)
C;Date: 12-Oct-1989 #sequence revision 31-Dec-1993 #text change 06-Sep-1996
C; Accession: A32428
R; van der Meer, R.A.; van Wassenaar, P.D.; van Brouwershaven, J.H.; Duine, J.A.
Biochem. Biophys. Res. Commun. 159, 726-733, 1989
A; Title: Primary structure of a pyrroloquinoline quinone (PQQ) containing
peptide isolated from porcine kidney diamine oxidase.
A; Reference number: A32428; MUID: 89193662; PMID: 2539124
A; Accession: A32428
A; Molecule type: protein
```

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A; Residues: 1-7, 'K', 9-11 < VAN>
A; Note: the modified residue thought by the authors to be pyrroloquinoline
quinone covalently bound to lysine is probably a topaquinone modified tyrosine
C; Keywords: oxidoreductase; quinoprotein; topaquinone
F;8/Modified site: topaquinone (Tyr) #status predicted
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 4e+04;
                                0; Mismatches
             2; Conservative
                                                                              0;
                                                    0; Indels
                                                                  0; Gaps
            4 AV 5
Qy
              11
            4 AV 5
Db
RESULT 36
A61483
pyridoxal kinase (EC 2.7.1.35) - sheep (fragment)
C; Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C; Date: 07-Oct-1994 #sequence revision 07-Oct-1994 #text change 07-Oct-1994
C; Accession: A61483
R; Churchich, J.E.
J. Protein Chem. 9, 613-621, 1990
A; Title: Cleavage of pyridoxal kinase into two structural domains: kinetics of
proteolysis monitored by emission anisotropy.
A; Reference number: A61483; MUID: 91197387; PMID: 2085386
A; Accession: A61483
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <CHU>
C; Keywords: homodimer; phosphotransferase
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 4e+04;
            2; Conservative
                                0; Mismatches
                                                    0;
                                                        Indels
                                                                      Gaps
                                                                              0;
Qу
            3 SA 4
              Db
            3 SA 4
RESULT 37
PD0442
NIPSNAP2 protein - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 05-Feb-1999 #sequence revision 05-Feb-1999 #text change 05-Feb-1999
C; Accession: PD0442
R; Kawakami, T.; Uchida, T.; Sakai, T.; Kamo, M.; Morimasa, T.; Tsugita, A.
submitted to JIPID, August 1998
A; Description: Proteome analysis of mouse brain.
A; Reference number: PD0441
A; Contents: Striatum
A; Accession: PD0442
A; Molecule type: protein
A; Residues: 1-11 <KAW>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
```

```
Best Local Similarity 100.0%; Pred. No. 4e+04;
          2; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps 0;
  Matches
           7 LK 8
Qу
             11
           6 LK 7
Db
RESULT 38
PN0044
protein kinase C inhibitor I - mouse (fragment)
C; Species: Mus musculus (house mouse)
C; Date: 29-Oct-1997 #sequence revision 29-Oct-1997 #text change 23-Jan-1998
C; Accession: PN0044
R; Kato, H.
Kawasaki Igakkaishi 22, 245-259, 1996
A; Title: Analysis of proteins isolated by two dimensional electrophoresis of
mouse neuroblastoma cells.
A; Reference number: PN0041
A; Accession: PN0044
A; Molecule type: protein
A; Residues: 1-11 <KAT>
A; Experimental source: neuroblastoma cell
C; Comment: The molecular mass is 13,900 and the pI is 6.36. The amino-terminus
is blocked.
C; Keywords: brain
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 4e+04;
            2; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
 Matches
Qу
           10 KA 11
             -1-1
Db
            1 KA 2
RESULT 39
PT0209
T-cell receptor alpha chain V-J region (4-1-L.6) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 30-May-1997
C; Accession: PT0209
R; Nakano, N.; Kikutani, H.; Nishimoto, H.; Kishimoto, T.
J. Exp. Med. 173, 1091-1097, 1991
A; Title: T cell receptor V gene usage of islet beta cell-reactive T cells is not
restricted in non-obese diabetic mice.
A; Reference number: PT0209; MUID: 91217621; PMID: 1902501
A; Accession: PT0209
A; Molecule type: mRNA
A; Residues: 1-11 < NAK>
C; Keywords: T-cell receptor
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 4e+04;
           2; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
  Matches
            2 GS 3
Qу
```

```
RESULT 40
PT0218
T-cell receptor beta chain V-J region (7-10-D.3) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 30-May-1997
C:Accession: PT0218
R; Nakano, N.; Kikutani, H.; Nishimoto, H.; Kishimoto, T.
J. Exp. Med. 173, 1091-1097, 1991
A; Title: T cell receptor V gene usage of islet beta cell-reactive T cells is not
restricted in non-obese diabetic mice.
A; Reference number: PT0209; MUID: 91217621; PMID: 1902501
A; Accession: PT0218
A; Molecule type: mRNA
A; Residues: 1-11 <NAK>
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 4e+04;
                                                                              0;
                              0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
             2; Conservative
  Matches
            1 AG 2
Qу
              \perp
            3 AG 4
Db
RESULT 41
D41946
T-cell receptor gamma chain (1a.4) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C; Date: 03-Feb-1994 #sequence revision 03-Feb-1994 #text change 07-May-1999
C; Accession: D41946
R; Whetsell, M.; Mosley, R.L.; Whetsell, L.; Schaefer, F.V.; Miller, K.S.; Klein,
J.R.
Mol. Cell. Biol. 11, 5902-5909, 1991
A; Title: Rearrangement and junctional-site sequence analyses of T-cell receptor
gamma genes in intestinal intraepithelial lymphocytes from murine athymic
chimeras.
A; Reference number: A41946; MUID: 92049316; PMID: 1658619
A; Accession: D41946
A; Status: preliminary; not compared with conceptual translation
A; Molecule type: DNA
A; Residues: 1-11 <WHE>
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2;
                                                    Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 4e+04;
                                                                               0;
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
  Matches
            4 AV 5
Qy
              \perp
            3 AV 4
Db
```

```
RESULT 42
B41946
T-cell receptor gamma chain (1t.57) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 03-Feb-1994 #sequence revision 03-Feb-1994 #text change 07-May-1999
C; Accession: B41946
R; Whetsell, M.; Mosley, R.L.; Whetsell, L.; Schaefer, F.V.; Miller, K.S.; Klein,
J.R.
Mol. Cell. Biol. 11, 5902-5909, 1991
A; Title: Rearrangement and junctional-site sequence analyses of T-cell receptor
gamma genes in intestinal intraepithelial lymphocytes from murine athymic
chimeras.
A; Reference number: A41946; MUID: 92049316; PMID: 1658619
A; Accession: B41946
A; Status: preliminary; not compared with conceptual translation
A; Molecule type: DNA
A; Residues: 1-11 <WHE>
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
 Query Match
                          100.0%; Pred. No. 4e+04;
 Best Local Similarity
                                                                             0;
            2; Conservative
                                0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
          4 AV 5
Qу
             Db
            3 AV 4
RESULT 43
C38887
T-cell receptor gamma chain (5a.3) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 03-Feb-1994 #sequence revision 03-Feb-1994 #text change 07-May-1999
C; Accession: C38887
R; Whetsell, M.; Mosley, R.L.; Whetsell, L.; Schaefer, F.V.; Miller, K.S.; Klein,
Mol. Cell. Biol. 11, 5902-5909, 1991
A; Title: Rearrangement and junctional-site sequence analyses of T-cell receptor
gamma genes in intestinal intraepithelial lymphocytes from murine athymic
chimeras.
A; Reference number: A41946; MUID: 92049316; PMID: 1658619
A; Accession: C38887
A; Status: preliminary; not compared with conceptual translation
A; Molecule type: DNA
A; Residues: 1-11 <WHE>
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
 Query Match
 Best Local Similarity
                          100.0%; Pred. No. 4e+04;
 Matches
            2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
Qу
            1 AG 2
              4 AG 5
Db
```

```
141946
T-cell receptor gamma chain (5t.1) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C; Date: 03-Feb-1994 #sequence revision 03-Feb-1994 #text change 07-May-1999
C; Accession: I41946
R; Whetsell, M.; Mosley, R.L.; Whetsell, L.; Schaefer, F.V.; Miller, K.S.; Klein,
J.R.
Mol. Cell. Biol. 11, 5902-5909, 1991
A; Title: Rearrangement and junctional-site sequence analyses of T-cell receptor
gamma genes in intestinal intraepithelial lymphocytes from murine athymic
chimeras.
A; Reference number: A41946; MUID: 92049316; PMID: 1658619
A; Accession: I41946
A; Status: preliminary; not compared with conceptual translation
A; Molecule type: DNA
A; Residues: 1-11 <WHE>
C; Keywords: T-cell receptor
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 4e+04;
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             2; Conservative 0; Mismatches
            1 AG 2
QУ
              \Box
Db
            4 AG 5
RESULT 45
A49037
TcR gamma V-J region - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 21-Jan-1994 #sequence revision 18-Nov-1994 #text_change 05-Nov-1999
C; Accession: A49037
R; Ezquerra, A.; Wilde, D.B.; McConnell, T.J.; Sturmhofel, K.; Valas, R.B.;
Shevach, E.M.; Coligan, J.E.
Eur. J. Immunol. 22, 491-498, 1992
A; Title: Mouse autoreactive gamma/delta T cells. II. Molecular characterization
of the T cell receptor.
A; Reference number: A49037; MUID: 92164730; PMID: 1311262
A; Accession: A49037
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <EZQ>
A; Cross-references: GB: S90637; NID: g246288; PIDN: AAB21547.1; PID: g246289
A; Experimental source: dendritic epidermal T-cell lines
A; Note: sequence extracted from NCBI backbone (NCBIN:90637, NCBIP:90641)
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
  Matches
             2; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            4 AV 5
              11
            2 AV 3
Db
```

```
TcR gamma V-J region - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 21-Jan-1994 #sequence revision 18-Nov-1994 #text change 05-Nov-1999
C; Accession: B49037
R; Ezquerra, A.; Wilde, D.B.; McConnell, T.J.; Sturmhofel, K.; Valas, R.B.;
Shevach, E.M.; Coligan, J.E.
Eur. J. Immunol. 22, 491-498, 1992
A; Title: Mouse autoreactive gamma/delta T cells. II. Molecular characterization
of the T cell receptor.
A; Reference number: A49037; MUID:92164730; PMID:1311262
A; Accession: B49037
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <EZQ>
A;Cross-references: GB:S90638; NID:g246290; PIDN:AAB21548.1; PID:g246291
A; Experimental source: dendritic epidermal T-cell lines
A; Note: sequence extracted from NCBI backbone (NCBIN:90638, NCBIP:90644)
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                                                              0;
                                                                 0; Gaps
             2; Conservative
                                0; Mismatches
                                                 0; Indels
            4 AV 5
Qу
              11
            2 AV 3
Db
RESULT 47
C49037
TcR gamma V-J region - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 21-Jan-1994 #sequence_revision 18-Nov-1994 #text change 05-Nov-1999
C; Accession: C49037
R; Ezquerra, A.; Wilde, D.B.; McConnell, T.J.; Sturmhofel, K.; Valas, R.B.;
Shevach, E.M.; Coligan, J.E.
Eur. J. Immunol. 22, 491-498, 1992
A; Title: Mouse autoreactive gamma/delta T cells. II. Molecular characterization
of the T cell receptor.
A; Reference number: A49037; MUID:92164730; PMID:1311262
A; Accession: C49037
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <EZQ>
A;Cross-references: GB:S90639; NID:g246292; PIDN:AAB21549.1; PID:g246293
A; Experimental source: dendritic epidermal T-cell lines
A; Note: sequence extracted from NCBI backbone (NCBIN: 90639, NCBIP: 90645)
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 4e+04;
            2; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
            4 AV 5
Qу
              11
Db
            2 AV 3
```

B49037

```
PD0441
translation elongation factor TU-like protein P43, mitochondrial - mouse
C; Species: Mus musculus (house mouse)
C;Date: 21-Aug-1998 #sequence revision 21-Aug-1998 #text change 21-Aug-1998
C; Accession: PD0441
R; Kawakami, T.; Uchida, T.; Sakai, T.; Kamo, M.; Morimasa, T.; Tsugita, A.
submitted to JIPID, August 1998
A; Description: Proteome analysis of mouse brain.
A; Reference number: PD0441
A; Accession: PD0441
A; Molecule type: protein
A; Residues: 1-11 <KAW>
A; Experimental source: striatum
C; Keywords: mitochondrion
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 4e+04;
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                               0;
 Matches
             2; Conservative
Qу
            8 KK 9
              \mathbf{I}
Dh
            5 KK 6
RESULT 49
S65377
cytochrome-c oxidase (EC 1.9.3.1) chain VIa-H, cardiac - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 28-Oct-1996 #sequence revision 13-Mar-1997 #text change 16-Jul-1999
C; Accession: S65377
R; Schaegger, H.; Noack, H.; Halangk, W.; Brandt, U.; von Jagow, G.
Eur. J. Biochem. 230, 235-241, 1995
A; Title: Cytochrome-c oxidase in developing rat heart. Enzymic properties and
amino-terminal sequences suggest identity of the fetal heart and the adult liver
isoform.
A; Reference number: S65372; MUID: 95324529; PMID: 7601105
A; Accession: S65377
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <SCH>
C; Keywords: cardiac muscle; heart; oxidoreductase
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 4e+04;
                                                                               0;
  Matches
            2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
Qу
            1 AG 2
              11
Db
           10 AG 11
RESULT 50
S09349
microtubule-associated protein MAP2 - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
```

RESULT 48

```
C;Date: 19-Mar-1997 #sequence revision 29-Aug-1997 #text_change 21-Nov-1998
C; Accession: S09349
R; Papandrikopoulou, A.; Doll, T.; Tucker, R.P.; Garner, C.C.; Matus, A.
Nature 340, 650-652, 1989
A; Title: Embryonic MAP2 lacks the cross-linking sidearm sequences and dendritic
targeting signal of adult MAP2.
A: Reference number: S09349; MUID: 89365159; PMID: 2770869
A: Accession: S09349
A; Status: not compared with conceptual translation
A; Molecule type: mRNA
A; Residues: 1-11 <PAP>
C: Genetics:
A; Gene: MAP2
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4e+04;
                                                                              0;
                                0; Mismatches 0; Indels
                                                                  0; Gaps
             2; Conservative
  Matches
            3 SA 4
Qу
              11
           10 SA 11
Db
RESULT 51
S18385
NADP-cytochrome P450 reductase-related protein - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 22-Nov-1993 #sequence revision 12-Apr-1996 #text change 07-Feb-1997
C; Accession: S18385
R; Nadler, S.G.; Strobel, H.W.
Arch. Biochem. Biophys. 290, 277-284, 1991
A; Title: Identification and characterization of an NADPH-cytochrome P450
reductase derived peptide involved in binding to cytochrome P450.
A; Reference number: S18385; MUID: 92027739; PMID: 1929397
A; Accession: S18385
A; Molecule type: protein
A; Residues: 1-11 < NAD>
C; Keywords: NADP
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4e+04;
                                                                              0;
                                                    0; Indels
                                                                  0; Gaps
             2; Conservative 0; Mismatches
  Matches
            3 SA 4
Qу
              Db
            3 SA 4
RESULT 52
S78422
ribosomal protein RS20, mitochondrial [validated] - rat (tentative sequence)
(fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 25-Feb-1998 #sequence revision 13-Mar-1998 #text change 21-Jul-2000
C; Accession: S78422
R; Goldschmidt-Reisin, S.; Graack, H.R.
submitted to the Protein Sequence Database, February 1998
```

```
A; Accession: S78422
A: Molecule type: protein
A; Residues: 1-11 <GOL>
A; Note: the protein is designated as mitochondrial ribosomal protein S20
C; Keywords: mitochondrion; protein biosynthesis; ribosome
                          18.2%; Score 2; DB 2;
                                                   Length 11;
  Query Match
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
                                0; Mismatches
                                                                              0;
                                                   0; Indels
                                                                  0; Gaps
             2: Conservative
  Matches
           10 KA 11
Qy
              \perp
           10 KA 11
RESULT 53
PH0939
T-cell receptor beta chain V-D-J region (clone 10) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C; Accession: PH0939
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0939
A; Molecule type: mRNA
A: Residues: 1-11 <GOL>
A; Experimental source: complete Freund's adjuvant-immunized lymph node
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4e+04;
             2; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
            7 LK 8
Qу
              II
            8 LK 9
Db
RESULT 54
PH0940
T-cell receptor beta chain V-D-J region (clone 11) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C; Accession: PH0940
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0940
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: complete Freund's adjuvant-immunized lymph node
```

A; Reference number: S78411

```
C; Keywords: T-cell receptor
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 4e+04;
  Matches
             2; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            3 SA 4
Qу
              11
            7 SA 8
Db
RESULT 55
PH0947
T-cell receptor beta chain V-D-J region (clone A2) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0947
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0947
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: myelin basic protein fragment-reactive T-cell, recovered
from experimentally induced allergic encephalomyelitis
C; Keywords: T-cell receptor
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%;
                                  Pred. No. 4e+04;
             2; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 GS 3
Qу
              11
Db
            8 GS 9
RESULT 56
PC2254
cytochrome P450 3A - savannah baboon (fragment)
C; Species: Papio hamadryas doquera (savannah baboon)
C; Date: 24-Feb-1995 #sequence revision 24-Feb-1995 #text change 19-May-2000
C; Accession: PC2254
R;Ohmori, S.; Kudo, S.; Nakasa, H.; Horie, T.; Kitada, M.
Biol. Pharm. Bull. 17, 1584-1588, 1994
A; Title: Purification and characterization of cytochrome P450 3A enzyme from
hepatic microsomes of untreated Doquera baboons.
A; Reference number: PC2254; MUID: 95253110; PMID: 7735199
A; Accession: PC2254
A; Molecule type: protein
A; Residues: 1-11 <OHM>
A; Experimental source: liver
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 4e+04;
  Best Local Similarity
            2; Conservative 0; Mismatches
  Matches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
```

```
4 AV 5
Qу
             11
            8 AV 9
Dh
RESULT 57
A34243
H-hyosophorin - Japanese flounder (fragment)
C; Species: Paralichthys olivaceus (Japanese flounder)
C;Date: 07-Sep-1990 #sequence revision 07-Sep-1990 #text change 12-Feb-1999
C; Accession: A34243
R; Seko, A.; Kitajima, K.; Iwasaki, M.; Inoue, S.; Inoue, Y.
J. Biol. Chem. 264, 15922-15929, 1989
A; Title: Structural studies of fertilization-associated carbohydrate-rich
glycoproteins (Hyosophorin) isolated from the fertilized and unfertilized eggs
of flounder, Paralichthys olivaceus. Presence of a novel penta-antennary N-
linkedglycan chain in the tandem repeating glycopeptide unit of hyosophorin.
A; Reference number: A34243; MUID: 89380184; PMID: 2777771
A; Accession: A34243
A; Molecule type: protein
A; Residues: 1-11 <SEK>
A; Note: 3-Ala, 4-Ala, 5-Pro or Gln, and 6-Val were also found
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 4e+04;
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
             2; Conservative
                                0; Mismatches
            2 GS 3
Qу
              \perp 1
            2 GS 3
Db
RESULT 58
H84082
hypothetical protein BH3464 [imported] - Bacillus halodurans (strain C-125)
C; Species: Bacillus halodurans
C;Date: 01-Dec-2000 #sequence revision 01-Dec-2000 #text change 15-Jun-2001
C; Accession: H84082
R; Takami, H.; Nakasone, K.; Takaki, Y.; Maeno, G.; Sasaki, R.; Masui, N.; Fuji,
F.; Hirama, C.; Nakamura, Y.; Ogasawara, N.; Kuhara, S.; Horikoshi, K.
Nucleic Acids Res. 28, 4317-4331, 2000
A; Title: Complete genome sequence of the alkaliphilic bacterium Bacillus
halodurans and genomic sequence comparison with Bacillus subtilis.
A; Reference number: A83650; MUID: 20512582; PMID: 11058132
A; Accession: H84082
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <STO>
A;Cross-references: GB:AP001518; GB:BA000004; NID:g10175792; PIDN:BAB07183.1;
GSPDB:GN00137
A; Experimental source: strain C-125
C; Genetics:
A; Gene: BH3464
  Query Match
                           18.2%; Score 2; DB 2; Length 11;
```

100.0%; Pred. No. 4e+04;

Best Local Similarity

```
0; Indels
                                                                  0; Gaps
 Matches
            2; Conservative
                                 0; Mismatches
            5 VK 6
Qу
              3 VK 4
Db
RESULT 59
I52708
ELAV-like neuronal protein 1, truncated splice form - human
N; Alternate names: Drosophila ELAV (embryonic lethal, abnormal vision) - like 4; Hu
antigen D; paraneoplastic encephalomyelitis antigen
C; Species: Homo sapiens (man)
C;Date: 18-Aug-2000 #sequence revision 18-Aug-2000 #text change 18-Aug-2000
C; Accession: I52708
R; Sekido, Y.; Bader, S.A.; Carbone, D.P.; Johnson, B.E.; Minna, J.D.
Cancer Res. 54, 4988-4992, 1994
A; Title: Molecular analysis of the HuD gene encoding a paraneoplastic
encephalomyelitis antigen in human lung cancer cell lines.
A; Reference number: I52708; MUID: 94349312; PMID: 8069866
A; Accession: I52708
A; Status: translated from GB/EMBL/DDBJ
A; Molecule type: mRNA
A; Residues: 1-11 <SEK>
A;Cross-references: GB:S73887; NID:g688242; PIDN:AAD14142.1; PID:g4261842
C; Comment: This abnormal peptide is expressed. For the long splice form, see
PIR: I38726.
C; Genetics:
A; Gene: GDB: ELAVL4; HUD; PNEM
A; Cross-references: GDB:141875; OMIM:168360
A; Map position: 1p36-1p36
C; Keywords: alternative splicing
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 4e+04;
             2; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            7 LK 8
QV
              11
Db
            8 LK 9
RESULT 60
I54081
retinoic acid receptor alpha, exon 3 (mistranslated) - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 04-Jun-1999 #sequence revision 04-Jun-1999 #text change 28-Jun-1999
C; Accession: I54081
R; Dong, S.; Geng, J.P.; Tong, J.H.; Wu, Y.; Cai, J.R.; Sun, G.L.; Chen, S.R.;
Wang, Z.Y.; Larsen, C.J.; Berger, R.
Genes Chromosomes Cancer 6, 133-139, 1993
A; Title: Breakpoint clusters of the PML gene in acute promyelocytic leukemia:
primary structure of the reciprocal products of the PML-RARA gene in a patient
with t(15;17).
A; Reference number: I54081; MUID: 93222087; PMID: 7682097
A; Accession: I54081
A; Status: translated from GB/EMBL/DDBJ
```

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A; Molecule type: DNA
A; Residues: 1-11 <DON>
A; Cross-references: GB:S57794; NID:q299073; PIDN:AAD13888.1; PID:q4261588
A; Note: the translation is from an incorrect reading frame
C; Genetics:
A; Gene: GDB: RARA
A; Cross-references: GDB:120337; OMIM:180240
A; Map position: 17q12-17q12
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 4e+04;
            2; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
  Matches
            4 AV 5
Qу
             11
            7 AV 8
Db
RESULT 61
XAVIBH
bradykinin-potentiating peptide - halys viper
N; Alternate names: BPP
C; Species: Agkistrodon halys (halys viper)
C;Date: 30-Sep-1988 #sequence_revision 30-Sep-1988 #text change 05-Aug-1994
C; Accession: JC0002
R; Chi, C.W.; Wang, S.Z.; Xu, L.G.; Wang, M.Y.; Lo, S.S.; Huang, W.D.
Peptides 6, 339-342, 1985
A; Title: Structure-function studies on the bradykinin potentiating peptide from
Chinese snake venom (Agkistrodon halys Pallas).
A; Reference number: JC0002; MUID:86177022; PMID:3008123
A; Accession: JC0002
A; Molecule type: protein
A; Residues: 1-11 <CHI>
C; Comment: Because this peptide both inhibits the activity of the angiotensin-
converting enzyme and enhances the action of bradykinin, it is an
antihypertensive agent.
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; antihypertensive;
bradykinin; pyroglutamic acid; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 2.2e+05;
  Best Local Similarity
            1; Conservative 0; Mismatches
                                                 0; Indels
                                                                     Gaps
                                                                              0;
            2 G 2
Qу
            2 G 2
Db
RESULT 62
XASNBA
bradykinin-potentiating peptide B - mamushi
C; Species: Agkistrodon blomhoffi (mamushi)
C;Date: 13-Jul-1981 #sequence revision 13-Jul-1981 #text change 08-Dec-1995
C; Accession: A01254
R; Kato, H.; Suzuki, T.
```

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A; Reference number: A01254
A; Accession: A01254
A; Molecule type: protein
A; Residues: 1-11 <KAT>
A; Note: the sequence of the natural peptide was confirmed by the synthesis and
analysis of a peptide having the identical structure and biological properties
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; bradykinin; pyroglutamic
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.2e+05;
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1; Conservative
            2 G 2
Qу
            2 G 2
Db
RESULT 63
ECLO2M
tachykinin II - migratory locust
C; Species: Locusta migratoria (migratory locust)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 08-Dec-1995
C; Accession: S08266
R; Schoofs, L.; Holman, G.M.; Hayes, T.K.; Nachman, R.J.; de Loof, A.
FEBS Lett. 261, 397-401, 1990
A; Title: Locustatachykinin I and II, two novel insect neuropeptides with
homology to peptides of the vertebrate tachykinin family.
A; Reference number: S08265; MUID: 90184489; PMID: 2311766
A; Accession: S08266
A; Molecule type: protein
A; Residues: 1-11 <SCH>
C; Superfamily: tachykinin
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Arg) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 2.2e+05;
  Best Local Similarity
                                                   0;
                                                                              0;
  Matches
            1; Conservative 0; Mismatches
                                                       Indels
                                                                  0; Gaps
Qу
            1 A 1
            1 A 1
Db
RESULT 64
SPHO
substance P - horse
C; Species: Equus caballus (domestic horse)
C;Date: 23-Oct-1981 #sequence_revision 23-Oct-1981 #text change 23-Aug-1996
C; Accession: A01558
R; Studer, R.O.; Trzeciak, A.; Lergier, W.
Helv. Chim. Acta 56, 860-866, 1973
A; Title: Isolierung und Aminosaeuresequenz von Substanz P aus Pferdedarm.
```

Proc. Jpn. Acad. 46, 176-181, 1970

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A; Accession: A01558
A; Molecule type: protein
A; Residues: 1-11 <STU>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 2.2e+05;
  Best Local Similarity
                                0; Mismatches
                                                                              0;
                                                   0; Indels
                                                                 0; Gaps
            1; Conservative
            6 K 6
Qу
            3 K 3
Db
RESULT 65
FOOCC
eledoisin - curled octopus
C; Species: Eledone cirrosa, Ozaena cirrosa (curled octopus)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 20-Mar-1998
C; Accession: B01561; A01561
R; Anastasi, A.; Erspamer, V.
Arch. Biochem. Biophys. 101, 56-65, 1963
A; Title: The isolation and amino acid sequence of eledoisin, the active
endecapeptide of the posterior salivary glands of Eledone.
A; Reference number: A01561
A; Accession: B01561
A; Molecule type: protein
A; Residues: 1-11 <ANA>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone; pyroglutamic acid; salivary gland;
secretagogue; vasodilator; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 2.2e+05;
  Best Local Similarity
                                                                              0;
            1; Conservative 0; Mismatches
                                                                  0; Gaps
                                                 0;
                                                       Indels
  Matches
            3 S 3
Qy
              1
            3 S 3
Db
RESULT 66
A60654
substance P - quinea pig
C; Species: Cavia porcellus (guinea pig)
C;Date: 14-May-1993 #sequence revision 27-Jun-1994 #text change 08-Dec-1995
C; Accession: A60654
R; Murphy, R.
Neuropeptides 14, 105-110, 1989
A; Title: Primary amino acid sequence of guinea-pig substance P.
A; Reference number: A60654; MUID: 90044685; PMID: 2478925
A; Accession: A60654
```

A; Reference number: A01558

```
A; Molecule type: protein
A; Residues: 1-11 < MUR>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.2e+05;
             1; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            6 K 6
Qу
            3 K 3
Db
RESULT 67
EOOC
eledoisin - musky octopus
C; Species: Eledone moschata, Ozaena moschata (musky octopus)
C;Date: 13-Jul-1981 #sequence revision 13-Jul-1981 #text change 20-Mar-1998
C; Accession: A01561
R; Anastasi, A.; Erspamer, V.
Arch. Biochem. Biophys. 101, 56-65, 1963
A; Title: The isolation and amino acid sequence of eledoisin, the active
endecapeptide of the posterior salivary glands of Eledone.
A; Reference number: A01561
A; Accession: A01561
A; Molecule type: protein
A; Residues: 1-11 < ANA>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone; pyroglutamic acid; salivary gland;
secretagogue; vasodilator; venom
F; 1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.2e+05;
                                                                  0; Gaps
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                              0;
Qу
            3 S 3
Db
            3 S 3
RESULT 68
GMROL
leucosulfakinin - Madeira cockroach
N; Alternate names: LSK
C; Species: Leucophaea maderae (Madeira cockroach)
C;Date: 17-Mar-1987 #sequence revision 17-Mar-1987 #text change 13-Sep-1996
C; Accession: A01622
R; Nachman, R.J.; Holman, G.M.; Haddon, W.F.; Ling, N.
Science 234, 71-73, 1986
A; Title: Leucosulfakinin, a sulfated insect neuropeptide with homology to
gastrin and cholecystokinin.
A; Reference number: A01622; MUID: 86315858; PMID: 3749893
A; Accession: A01622
```

```
A; Molecule type: protein
A; Residues: 1-11 <NAC>
C; Superfamily: gastrin
C; Keywords: amidated carboxyl end; hormone; sulfoprotein
F;6/Binding site: sulfate (Tyr) (covalent) #status experimental
F;11/Modified site: amidated carboxyl end (Phe) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.2e+05;
 Matches
            1; Conservative
                               0; Mismatches
                                                   0;
                                                       Indels
                                                                              0;
                                                                  0; Gaps
            2 G 2
Qy
            7 G 7
Db
RESULT 69
G42762
proteasome endopeptidase complex (EC 3.4.25.1) subunit 13 - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C;Date: 04-Mar-1993 #sequence revision 18-Nov-1994 #text change 17-Feb-2003
C; Accession: G42762
R; Dick, L.R.; Moomaw, C.R.; Pramanik, B.C.; DeMartino, G.N.; Slaughter, C.A.
Biochemistry 31, 7347-7355, 1992
A; Title: Identification and localization of a cysteinyl residue critical for the
trypsin-like catalytic activity of the proteasome.
A; Reference number: A42762; MUID: 92378961; PMID: 1510924
A; Accession: G42762
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <DIC>
A; Note: sequence extracted from NCBI backbone (NCBIP:112176)
C; Superfamily: multicatalytic endopeptidase complex chain C9
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reinhardtii chloroplast (fragment)
N; Alternate names: ATP synthase chain I
C; Species: chloroplast Chlamydomonas reinhardtii
C;Date: 04-Dec-1997 #sequence revision 12-Dec-1997 #text change 03-Jun-2002
C; Accession: S68392
R; Fiedler, H.R.; Schmid, R.; Leu, S.; Shavit, N.; Strotmann, H.
FEBS Lett. 377, 163-166, 1995
A; Title: Isolation of CF(0)CF(1) from Chlamydomonas reinhardtii cw15 and the N-
terminal amino acid sequences of the CF(0)CF(1) subunits.
A; Reference number: S68388; MUID: 96128220; PMID: 8543042
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A; Accession: S68392
A; Molecule type: protein
A; Residues: 1-11 <FIE>
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C; Species: Rattus norvegicus (Norway rat)
C;Date: 19-Dec-1993 #sequence revision 18-Nov-1994 #text change 31-Oct-1997
C; Accession: B49164
R; Nielsen, E.; Welinder, B.S.; Madsen, O.D.
Endocrinology 129, 3147-3156, 1991
A; Title: Chromogranin-B, a putative precursor of eight novel rat glucagonoma
peptides through processing at mono-, di-, or tribasic residues.
A; Reference number: A49164; MUID: 92063871; PMID: 1954895
A; Accession: B49164
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substance P - chicken
C; Species: Gallus gallus (chicken)
C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text change 11-Jul-1997
C; Accession: JN0023
R; Conlon, J.M.; Katsoulis, S.; Schmidt, W.E.; Thim, L.
Regul. Pept. 20, 171-180, 1988
A; Title: [Arg3] substance P and neurokinin A from chicken small intestine.
A; Reference number: JN0023; MUID: 88204263; PMID: 2452461
A; Accession: JN0023
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A; Molecule type: protein
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C; Date: 19-Mar-1997 #sequence revision 25-Apr-1997 #text change 13-Aug-1999
C; Accession: S32575
R; Taylor, G.W.; Wolfe, K.H.; Morden, C.W.; dePamphilis, C.W.; Palmer, J.D.
Curr. Genet. 20, 515-518, 1991
A; Title: Lack of a functional plastid tRNA(Cys) gene is associated with loss of
photosynthesis in a lineage of parasitic plants.
A; Reference number: S32575; MUID: 92145776; PMID: 1723664
A; Accession: S32575
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <TAY>
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C;Date: 03-May-1994 #sequence revision 03-May-1994 #text change 31-Oct-1997
C; Accession: A40693
R; Shapland, C.; Hsuan, J.J.; Totty, N.F.; Lawson, D.
J. Cell Biol. 121, 1065-1073, 1993
A; Title: Purification and properties of transgelin: a transformation and shape
change sensitive actin-gelling protein.
A; Reference number: A40693; MUID: 93273790; PMID: 8501116
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A; Accession: A40693
A; Molecule type: protein
A; Residues: 1-11 <SHA>
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C; Comment: This protein gels actin and is down regulated by transformation or
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C; Superfamily: smooth muscle protein SM22; calponin repeat homology; smooth
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C; Species: Nicotiana tabacum (common tobacco)
C;Date: 19-May-1994 #sequence revision 19-May-1994 #text change 17-Mar-1999
C; Accession: PQ0682
R; Obokata, J.; Mikami, K.; Hayashida, N.; Nakamura, M.; Sugiura, M.
Plant Physiol. 102, 1259-1267, 1993
A; Title: Molecular heterogeneity of photosystem I. psaD, psaE, psaF, psaH and
psaL are all present in isoforms in Nicotiana spp.
A; Reference number: PQ0667; MUID: 94105345; PMID: 8278548
A; Accession: PQ0682
A; Molecule type: protein
A; Residues: 1-11 <OBO>
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Job time : 8.61538 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

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SUMMARIES

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No. Score Match Length DB ID

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5	4	36.4	11	9	US-09-981-876-274	Sequence 274, App
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ALIGNMENTS

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US-10-653-595-458

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- ; GENERAL INFORMATION:
- ; APPLICANT: Ruben et. al.
- ; TITLE OF INVENTION: 95 Human secreted proteins
- ; FILE REFERENCE: PZ027P1C1

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  CURRENT FILING DATE: 2003-09-03
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  PRIOR FILING DATE: 1999-09-17
  PRIOR APPLICATION NUMBER: PCT/US99/05804
  PRIOR FILING DATE: 1999-03-18
  PRIOR APPLICATION NUMBER: 60/078,566
  PRIOR FILING DATE: 1998-03-19
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  PRIOR APPLICATION NUMBER: 60/080,314
  PRIOR FILING DATE: 1998-04-01
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; GENERAL INFORMATION:
  APPLICANT: Walston, Timothy
  APPLICANT: Cooper, Scott
  APPLICANT: Revzaie, Alireza
  TITLE OF INVENTION: ANTITHROMBIN H-HELIX MUTANTS
  FILE REFERENCE: 7869.10USU1
  CURRENT APPLICATION NUMBER: US/09/828,592
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  PRIOR APPLICATION NUMBER: 60/195,872
  PRIOR FILING DATE: 2000-04-07
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; Sequence 206, Application US/09765527
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    GENERAL INFORMATION:
         APPLICANT: Better, Marc D.
         TITLE OF INVENTION: Methods for Recombinant Microbial Production of
                             Fusion Proteins and BPI-Derived Peptides
         NUMBER OF SEQUENCES: 265
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
              STREET: 6300 Sears Tower, 233 South Wacker Drive
              CITY: Chicago
              STATE: Illinois
              COUNTRY: United States of America
              ZIP: 60606-6402
         COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25
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              FILING DATE: 18-Jan-2001
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/621,803
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Borun, Michael F.
              REGISTRATION NUMBER: 25,447
              REFERENCE/DOCKET NUMBER: 27129/33199
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 312/474-6300
              TELEFAX: 312/474-0448
              TELEX: 25-3856
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LENGTH: 11

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                    Lim, Edward
                    Fadem, Mitchell B.
         TITLE OF INVENTION: Anti-Fungal Peptides
         NUMBER OF SEQUENCES: 211
         CORRESPONDENCE ADDRESS:
;
              ADDRESSEE: McAndrews, Held & Malloy, Ltd.
;
              STREET: 500 West Madison Street, 34th FloorDrive
              CITY: Chicago
              STATE: Illinois
              COUNTRY: United States of America
              ZIP: 60661
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25
         CURRENT APPLICATION DATA:
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              FILING DATE: 14-Jun-2001
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 09/119,858
              FILING DATE: <Unknown>
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              FILING DATE: 13-JAN-95
              APPLICATION NUMBER: 08/306,473
              FILING DATE: 15-SEP-94
              APPLICATION NUMBER: 08/273,540
              FILING DATE: 11-JUL-94
              APPLICATION NUMBER: 08/209,762
              FILING DATE: 11-MAR-94
              APPLICATION NUMBER: 08/183,222
              FILING DATE: 14-JAN-94
              APPLICATION NUMBER: 08/093,202
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FILING DATE: 15-JUL-93
              APPLICATION NUMBER: 08/030,644
              FILING DATE: 12-MAR-93
         ATTORNEY/AGENT INFORMATION:
              NAME: McNicholas, Janet M.
              REGISTRATION NUMBER: 32,918
              REFERENCE/DOCKET NUMBER: 100-238/11021US01
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 312/707-8889
              TELEFAX: 312/707-9155
              TELEX: 650 388-1248
    INFORMATION FOR SEQ ID NO: 181:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
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              LOCATION: C-Terminus
              OTHER INFORMATION: /label= Amidation
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  Best Local Similarity 100.0%; Pred. No. 1.7e+03;
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Db
            8 LKKK 11
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US-09-981-876-274
; Sequence 274, Application US/09981876
; Patent No. US20020164669A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
   TITLE OF INVENTION: 70 Human Secreted Proteins
   FILE REFERENCE: PZ001P1
  CURRENT APPLICATION NUMBER: US/09/981,876
; CURRENT FILING DATE: 2001-10-19
; PRIOR APPLICATION NUMBER: 09/148,545
   PRIOR FILING DATE: 1998-09-04
   PRIOR APPLICATION NUMBER: 60/040,162
   PRIOR FILING DATE: 1997-03-07
   PRIOR APPLICATION NUMBER: 60/040,333
   PRIOR FILING DATE: 1997-03-07
  PRIOR APPLICATION NUMBER: 60/038,621
; PRIOR FILING DATE: 1997-03-07
; PRIOR APPLICATION NUMBER: 60/040,161
   PRIOR FILING DATE: 1997-03-07
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- ; PRIOR APPLICATION NUMBER: 60/043,315
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  Best Local Similarity 100.0%; Pred. No. 1.7e+03;
          4; Conservative 0; Mismatches 0; Indels
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US-09-148-545-274
; Sequence 274, Application US/09148545
; Publication No. US20030027132A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
  TITLE OF INVENTION: 70 Human Secreted Proteins
  FILE REFERENCE: PZ001P1
  CURRENT APPLICATION NUMBER: US/09/148,545
; CURRENT FILING DATE: 1998-09-04
; EARLIER APPLICATION NUMBER: PCT/US98/04482
; EARLIER FILING DATE: 1998-03-06
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  EARLIER APPLICATION NUMBER: 60/056,884
  EARLIER FILING DATE: 1997-08-22
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                         36.4%; Score 4; DB 10; Length 11;
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; Publication No. US20030072794A1
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; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
; FILE REFERENCE: TB-2002.00
; CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
 PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
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   OTHER INFORMATION: Description of Unknown Organism: mismatch repair peptide
US-09-876-904A-246
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.7e+03;
  Matches 4; Conservative 0; Mismatches 0; Indels
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Qу
             Db
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US-09-876-904A-434
; Sequence 434, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
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  CURRENT FILING DATE: 2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
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    ORGANISM: Drosophila sp.
    FEATURE:
    OTHER INFORMATION: Drosophila ultrabiothorax protein (from the
    OTHER INFORMATION: conserved 61 amino acid homeodomain segment only).
US-09-876-904A-434
                          36.4%; Score 4; DB 10; Length 11;
  Query Match
                          100.0%; Pred. No. 1.7e+03;
  Best Local Similarity
            4; Conservative 0; Mismatches
                                                      Indels
                                                                 0; Gaps
                                                                             0;
            6 KLKK 9
Qу
              \perp
Db
            6 KLKK 9
RESULT 9
US-09-876-904A-544
; Sequence 544, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
   TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
; CURRENT APPLICATION NUMBER: US/09/876,904A
; CURRENT FILING DATE: 2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 544
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Rattus sp.
   FEATURE:
    OTHER INFORMATION: Rat L17 ribosomal protein (184 aas).
US-09-876-904A-544
  Query Match
                          36.4%; Score 4; DB 10; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 1.7e+03;
  Matches
            4; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
Qу
            6 KLKK 9
              1111
            8 KLKK 11
RESULT 10
US-09-876-904A-597
; Sequence 597, Application US/09876904A
```

```
; Publication No. US20030072794A1
; GENERAL INFORMATION:
 APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
   FILE REFERENCE: TB-2002.00
   CURRENT APPLICATION NUMBER: US/09/876,904A
   CURRENT FILING DATE: 2001-06-08
   PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 597
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Parechinus angulosus
    FEATURE:
    OTHER INFORMATION: Sea urchin Parechinus angulosus sperm H1 (248 aa).
US-09-876-904A-597
                          36.4%; Score 4; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.7e+03;
                               0; Mismatches
                                                                 0; Gaps
            4; Conservative
                                                   0; Indels
                                                                             0;
            8 KKKA 11
Qу
              IIII
            8 KKKA 11
Db
RESULT 11
US-09-852-910-162
; Sequence 162, Application US/09852910
; Publication No. US20030096297A1
; GENERAL INFORMATION:
  APPLICANT: Hamm, Heidi
; APPLICANT: Gilchrist, Annette
  TITLE OF INVENTION: Method For Identifying Inhibitors of G Protein Coupled
Receptor Signaling
; FILE REFERENCE: 2661-101
; CURRENT APPLICATION NUMBER: US/09/852,910
  CURRENT FILING DATE: 2001-09-18
   PRIOR APPLICATION NUMBER: US 60/275,472
  PRIOR FILING DATE: 2001-03-14
; NUMBER OF SEQ ID NOS: 271
   SOFTWARE: PatentIn version 3.0
; SEQ ID NO 162
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
   NAME/KEY: misc feature
    LOCATION: (1)..(11)
    OTHER INFORMATION: G alpha t library pepetide
US-09-852-910-162
```

```
Best Local Similarity 100.0%; Pred. No. 1.7e+03;
  Matches
            4; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                         0;
           5 VKLK 8
Qу
             3 VKLK 6
Db
RESULT 12
US-09-852-910-251
; Sequence 251, Application US/09852910
; Publication No. US20030096297A1
; GENERAL INFORMATION:
; APPLICANT: Hamm, Heidi
; APPLICANT: Gilchrist, Annette
; TITLE OF INVENTION: Method For Identifying Inhibitors of G Protein Coupled
Receptor Signaling
; FILE REFERENCE: 2661-101
  CURRENT APPLICATION NUMBER: US/09/852,910
  CURRENT FILING DATE: 2001-09-18
; PRIOR APPLICATION NUMBER: US 60/275,472
; PRIOR FILING DATE: 2001-03-14
; NUMBER OF SEQ ID NOS: 271
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 251
   LENGTH: 11
;
   TYPE: PRT
   ORGANISM: Artificial Sequence
;
   FEATURE:
   NAME/KEY: misc feature
   LOCATION: (1)..(11)
   OTHER INFORMATION: Gll library peptide
US-09-852-910-251
                         36.4%; Score 4; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.7e+03;
           4; Conservative
                               0; Mismatches 0; Indels 0; Gaps
                                                                           0;
           5 VKLK 8
Qу
             3 VKLK 6
RESULT 13
US-09-978-309A-30
; Sequence 30, Application US/09978309A
; Publication No. US20030100490A1
; GENERAL INFORMATION:
; APPLICANT: Cruz, Tony
 APPLICANT: Pastrak, Aleksandra
  APPLICANT: Turley, Eva A.
  TITLE OF INVENTION: Compositions and Methods for Treating Cellular Response
to
; TITLE OF INVENTION: Injury and Other Proliferating Cell Disorders Regulated
bу
```

36.4%; Score 4; DB 10; Length 11;

Query Match

```
TITLE OF INVENTION: Hyaladherin and Hyaluronans
  FILE REFERENCE: 033352-010
  CURRENT APPLICATION NUMBER: US/09/978,309A
  CURRENT FILING DATE: 2002-04-04
  PRIOR APPLICATION NUMBER: US 09/685,010
  PRIOR FILING DATE: 2000-10-05
; PRIOR APPLICATION NUMBER: US 09/541,522
  PRIOR FILING DATE: 2000-04-03
; PRIOR APPLICATION NUMBER: US 60/127,457
 PRIOR FILING DATE: 1999-04-01
; NUMBER OF SEQ ID NOS: 84
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 30
; LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Peptide composition that binds a hyalauronan
US-09-978-309A-30
 Query Match
                         36.4%; Score 4; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.7e+03;
 Matches 4; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
                                                                           0;
           5 VKLK 8
Qу
             Db
           8 VKLK 11
RESULT 14
US-10-281-478-89
; Sequence 89, Application US/10281478
; Publication No. US20030108959A1
; GENERAL INFORMATION:
; APPLICANT: Immunex Corporation
; APPLICANT: Johnson, Richard S.
; APPLICANT: Guo, Lin
; APPLICANT: Mahimkar, Rajeev M.
; APPLICANT: Peschon, Jacques J.
; APPLICANT: Black, Roy A.
; TITLE OF INVENTION: TREATING DISEASES MEDIATED BY METALLOPROTEASE-SHED
PROTEINS
  FILE REFERENCE: 3327-A
; CURRENT APPLICATION NUMBER: US/10/281,478
  CURRENT FILING DATE: 2002-10-25
; NUMBER OF SEQ ID NOS: 158
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 89
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: peptide
   FEATURE:
   NAME/KEY: MOD RES
   LOCATION: (2)..(2)
   OTHER INFORMATION: alkylated cysteine
```

```
FEATURE:
   NAME/KEY: MOD RES
   LOCATION: (10)..(10)
    OTHER INFORMATION: alkylated cysteine
US-10-281-478-89
  Query Match
                          36.4%; Score 4; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.7e+03;
           4; Conservative 0; Mismatches
                                                      Indels
                                                                 0; Gaps
                                                                             0;
                                                  0;
            2 GSAV 5
Qу
              \perp \perp \perp \perp
Db
            5 GSAV 8
RESULT 15
US-10-281-478-127
; Sequence 127, Application US/10281478
; Publication No. US20030108959A1
; GENERAL INFORMATION:
; APPLICANT: Immunex Corporation
  APPLICANT: Johnson, Richard S.
; APPLICANT: Guo, Lin
  APPLICANT: Mahimkar, Rajeev M.
  APPLICANT: Peschon, Jacques J.
  APPLICANT: Black, Roy A.
  TITLE OF INVENTION: TREATING DISEASES MEDIATED BY METALLOPROTEASE-SHED
PROTEINS
  FILE REFERENCE: 3327-A
  CURRENT APPLICATION NUMBER: US/10/281,478
; CURRENT FILING DATE: 2002-10-25
; NUMBER OF SEQ ID NOS: 158
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 127
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: peptide
   FEATURE:
   NAME/KEY: MOD RES
   LOCATION: (2)..(2)
   OTHER INFORMATION: alkylated cysteine
   FEATURE:
   NAME/KEY: MOD_RES
   LOCATION: (10)..(10)
   OTHER INFORMATION: alkylated cysteine
US-10-281-478-127
 Query Match
                          36.4%; Score 4; DB 14; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.7e+03;
 Matches
           4; Conservative
                              0; Mismatches
                                                 0; Indels 0; Gaps
                                                                             0;
           2 GSAV 5
Qу
             \mathbf{I}
Db
            5 GSAV 8
```

```
RESULT 16
US-10-137-867-340
; Sequence 340, Application US/10137867
; Publication No. US20030207349A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
  APPLICANT: Beresini, Maureen
  APPLICANT: DeForge, Laura
 APPLICANT: Desnoyers, Luc
  APPLICANT: Filvaroff, Ellen
  APPLICANT: Gao, Wei-Qiang
  APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Sherwood, Steven
 APPLICANT: Smith, Victoria
  APPLICANT: Stewart, Timothy A.
  APPLICANT:
              Tumas, Daniel
  APPLICANT:
              Watanabe, Colin K
  APPLICANT: Wood, William
  APPLICANT:
              Zhang, Zemin
  TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
  TITLE OF INVENTION: ACIDS ENCODING THE SAME
  FILE REFERENCE: P3330R1C146
  CURRENT APPLICATION NUMBER: US/10/137,867
  CURRENT FILING DATE: 2002-05-03
  Prior Application removed - See Palm or File Wrapper
  NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 340
   LENGTH: 386
   TYPE: PRT
   ORGANISM: Homo Sapien
US-10-137-867-340
  Query Match
                         36.4%; Score 4; DB 15; Length 11;
  Best Local Similarity · 100.0%; Pred. No. 1.7e+03;
           4; Conservative 0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                            0;
           1 AGSA 4
Qу
             Db
           4 AGSA 7
RESULT 17
US-10-205-647A-1
; Sequence 1, Application US/10205647A
; Publication No. US20040010812A1
  GENERAL INFORMATION:
    APPLICANT: University of Manitoba
    APPLICANT: Manitoba Cancer Treatment and Research Foundation
    APPLICANT:
                TURLEY, Eva A.
    APPLICANT: ENTWISTLE, Joycelyn
    TITLE OF INVENTION: HUMAN HYALURONAN RECEPTOR
    NUMBER OF SEQUENCES: 52
    CORRESPONDENCE ADDRESS:
```

```
STREET: 181 Freedman Crescent, Room 361
       CITY: Winnipeg
       STATE: Manitoba
      COUNTRY: Canada
       ZIP: R3T 5V4
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/10/205,647A
      FILING DATE: 23-JULY-2002
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/CA97/00240
      FILING DATE: 10-APR-1996
      APPLICATION NUMBER: GB 9607441.4
      FILING DATE: 10
   INFORMATION FOR SEQ ID NO: 1:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-10-205-647A-1
 Query Match
                         36.4%; Score 4; DB 15; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.7e+03;
            4; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           5 VKLK 8
Qу
             ++++
Db
           8 VKLK 11
RESULT 18
US-10-411-336A-162
; Sequence 162, Application US/10411336A
; Publication No. US20040018558A1
; GENERAL INFORMATION:
; APPLICANT: GILCHRIST, ANNETTE
; APPLICANT: HAMM, HEIDI
  TITLE OF INVENTION: METHOD FOR IDENTIFYING MODULATORS OF G PROTEIN COUPLED
RECEPTOR
  TITLE OF INVENTION: SIGNALING
  FILE REFERENCE: 2661-102
  CURRENT APPLICATION NUMBER: US/10/411,336A
  CURRENT FILING DATE: 2003-04-11
  PRIOR APPLICATION NUMBER: US 09/852910
  PRIOR FILING DATE: 2001-05-11
; PRIOR APPLICATION NUMBER: US 60/275472
 PRIOR FILING DATE: 2001-03-14
; NUMBER OF SEQ ID NOS: 273
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 162
; LENGTH: 11
```

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TYPE: PRT
    ORGANISM: Artificial Sequence
    OTHER INFORMATION: G alpha t library pepetide
US-10-411-336A-162
                          36.4%; Score 4; DB 15; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.7e+03;
          4; Conservative 0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
            5 VKLK 8
Qy
              1111
            3 VKLK 6
Db
RESULT 19
US-10-411-336A-251
; Sequence 251, Application US/10411336A
; Publication No. US20040018558A1
; GENERAL INFORMATION:
  APPLICANT: GILCHRIST, ANNETTE
  APPLICANT: HAMM, HEIDI
  TITLE OF INVENTION: METHOD FOR IDENTIFYING MODULATORS OF G PROTEIN COUPLED
RECEPTOR
   TITLE OF INVENTION: SIGNALING
   FILE REFERENCE: 2661-102
   CURRENT APPLICATION NUMBER: US/10/411,336A
   CURRENT FILING DATE: 2003-04-11
  PRIOR APPLICATION NUMBER: US 09/852910
  PRIOR FILING DATE: 2001-05-11
  PRIOR APPLICATION NUMBER: US 60/275472
  PRIOR FILING DATE: 2001-03-14
  NUMBER OF SEQ ID NOS: 273
   SOFTWARE: PatentIn version 3.2
; SEQ ID NO 251
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Gl1 library peptide
US-10-411-336A-251
  Query Match
                          36.4%; Score 4; DB 15; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.7e+03;
           4; Conservative 0; Mismatches
                                                  0;
  Matches
                                                       Indels
                                                                 0; Gaps
                                                                             0;
            5 VKLK 8
Qу
              1111
Db
            3 VKLK 6
RESULT 20
US-09-739-907-108
; Sequence 108, Application US/09739907
; Patent No. US20010012889A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
```

```
TITLE OF INVENTION: 36 Human Secreted Proteins
   FILE REFERENCE: PZ022P1
   CURRENT APPLICATION NUMBER: US/09/739,907
   CURRENT FILING DATE:
                         2000-12-20
   PRIOR APPLICATION NUMBER: 09/348,457
   PRIOR FILING DATE: 1999-07-07
   PRIOR APPLICATION NUMBER: 60/070,567
   PRIOR FILING DATE: 1998-01-07
   PRIOR APPLICATION NUMBER: 60/070,692
   PRIOR FILING DATE: 1998-01-07
   PRIOR APPLICATION NUMBER: 60/070,704
   PRIOR FILING DATE: 1998-01-07
  PRIOR APPLICATION NUMBER: 60/070,658
  PRIOR FILING DATE: 1998-01-07
  NUMBER OF SEQ ID NOS: 196
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 108
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-739-907-108
                          27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
 Matches
            3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
           1 AGS 3
Qу
              111
            1 AGS 3
Db
RESULT 21
US-09-827-949-21
; Sequence 21, Application US/09827949
; Patent No. US20010021505A1
; GENERAL INFORMATION:
  APPLICANT: Morris, Stephan W.
  APPLICANT: Look, A. Thomas
  TITLE OF INVENTION: ALK Protein Tyrosine Kinase/Receptor and Ligands Thereof
  FILE REFERENCE: 0656.0400004
  CURRENT APPLICATION NUMBER: US/09/827,949
  CURRENT FILING DATE: 2001-04-09
  PRIOR APPLICATION NUMBER: US 09/670,827
 PRIOR FILING DATE: 2000-09-28
  PRIOR APPLICATION NUMBER: US 09/100,089
  PRIOR FILING DATE: 1998-06-19
  PRIOR APPLICATION NUMBER: US 08/542,363
  PRIOR FILING DATE: 1995-10-12
  PRIOR APPLICATION NUMBER: US 08/160,861
  PRIOR FILING DATE: 1993-12-03
  NUMBER OF SEQ ID NOS: 43
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 21
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-827-949-21
```

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Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
            3; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                            0;
            4 AVK 6
Qу
             1 | |
            5 AVK 7
Db
RESULT 22
US-09-865-578-6
; Sequence 6, Application US/09865578
; Patent No. US20010034433A1
; GENERAL INFORMATION:
; APPLICANT: E. MARTIN, SPENCER
  TITLE OF INVENTION: HUMAN SOMATOMEDIAN CARRIER PROTEIN SUBUNITS
   TITLE OF INVENTION: AND PROCESS FOR PRODUCING THEM; RECOMBINANT DNA
MOLECULES,
  TITLE OF INVENTION: HOSTS, PROCESSES AND HUMAN SOMATOMEDIAN CARRIER PROTEIN-
LIKE
   TITLE OF INVENTION: POLYPEPTIDES
  FILE REFERENCE: 057491/0680
  CURRENT APPLICATION NUMBER: US/09/865,578
   CURRENT FILING DATE: 2001-05-29
  PRIOR APPLICATION NUMBER: 09/397,192
  PRIOR FILING DATE: 1999-09-16
  PRIOR APPLICATION NUMBER: 09/162,118
  PRIOR FILING DATE: 1998-09-28
  PRIOR APPLICATION NUMBER: 08/923,860
  PRIOR FILING DATE: 1997-09-03
   PRIOR APPLICATION NUMBER: 08/706,755
   PRIOR FILING DATE: 1996-09-03
   PRIOR APPLICATION NUMBER: 08/437,407
  PRIOR FILING DATE: 1995-05-12
  PRIOR APPLICATION NUMBER: 08/320,123
  PRIOR FILING DATE: 1994-10-07
  PRIOR APPLICATION NUMBER: 08/043,039
  PRIOR FILING DATE: 1993-04-05
  PRIOR APPLICATION NUMBER: 07/763,481
  PRIOR FILING DATE: 1991-09-20
  PRIOR APPLICATION NUMBER: 07/290,250
   PRIOR FILING DATE: 1988-12-22
   PRIOR APPLICATION NUMBER: 07/170,022
   PRIOR FILING DATE: 1988-03-31
   PRIOR APPLICATION NUMBER: 07/034,885
   PRIOR FILING DATE: 1987-04-06
  NUMBER OF SEQ ID NOS: 14
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
    FEATURE:
   NAME/KEY: MOD_RES
   LOCATION: (5)
    OTHER INFORMATION: Ala or Gly
```

```
27.3%; Score 3; DB 9; Length 11;
  Query Match
 Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                         0;
 Matches
          3 SAV 5
Qу
             111
           7 SAV 9
RESULT 23
US-09-124-280A-35
; Sequence 35, Application US/09124280A
; Patent No. US20020034520A1
; GENERAL INFORMATION:
    APPLICANT: Porro, Massimo
    TITLE OF INVENTION: VACCINES FOR PREVENTION OF GRAM-
    TITLE OF INVENTION: NEGATIVE BACTERIAL INFECTIONS AND ENDOTOXIN RELATED
DISEASES
    NUMBER OF SEQUENCES: 45
;
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Hedman, Gibson & Costigan
      STREET: 1185 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: USA
      ZIP: 10036
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Diskette, 3.50 inch, 1.44 Mb storage
;
      COMPUTER: IBM PS/2
      OPERATING SYSTEM: DOS
      SOFTWARE: Word Perfect 5.1
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/124,280A
      FILING DATE: July 29,1998
      CLASSIFICATION: 424
;
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER:
;
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Costigan, James V.
      REGISTRATION NUMBER: 25,669
      REFERENCE/DOCKET NUMBER: 576-008
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 302-8989
;
      TELEFAX: (212) 302-8998
  INFORMATION FOR SEQ ID NO: 35:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: circular
US-09-124-280A-35
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                          0;
```

```
7 LKK 9
Qу
             +111
            8 LKK 10
Db
RESULT 24
US-09-030-619-55
; Sequence 55, Application US/09030619B
; Patent No. US20020035061A1
; GENERAL INFORMATION:
  APPLICANT: Krieger, Timothy J.
  APPLICANT: Taylor, Robert
  APPLICANT: Erfle, Douglas
  APPLICANT: Fraser, Janet R.
; APPLICANT: West, Michael H.P.
  APPLICANT: McNicol, Patricia J.
  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
  TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN
COMBINATION
  TITLE OF INVENTION: WITH ANTIBIOTICS
  FILE REFERENCE: 660081.406
  CURRENT APPLICATION NUMBER: US/09/030,619B
  CURRENT FILING DATE: 1998-02-25
  NUMBER OF SEQ ID NOS: 232
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 55
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
   OTHER INFORMATION: Indolicidin Analogue
US-09-030-619-55
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
                               0; Mismatches
                                                0; Indels 0; Gaps
                                                                            0;
 Matches
           3; Conservative
           7 LKK 9
Qу
             +111
            2 LKK 4
Db
RESULT 25
US-09-030-619-56
; Sequence 56, Application US/09030619B
; Patent No. US20020035061A1
; GENERAL INFORMATION:
; APPLICANT: Krieger, Timothy J.
  APPLICANT:
              Taylor, Robert
  APPLICANT: Erfle, Douglas
  APPLICANT:
              Fraser, Janet R.
  APPLICANT:
              West, Michael H.P.
   APPLICANT: McNicol, Patricia J.
   TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
  TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN
```

COMBINATION

```
; TITLE OF INVENTION: WITH ANTIBIOTICS
  FILE REFERENCE: 660081.406
  CURRENT APPLICATION NUMBER: US/09/030,619B
  CURRENT FILING DATE: 1998-02-25
  NUMBER OF SEQ ID NOS: 232
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 56
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Indolicidin Analogue
US-09-030-619-56
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           7 LKK 9
Qу
             111
Db
           2 LKK 4
RESULT 26
US-09-030-619-78
; Sequence 78, Application US/09030619B
; Patent No. US20020035061A1
; GENERAL INFORMATION:
  APPLICANT: Krieger, Timothy J.
             Taylor, Robert
; APPLICANT:
; APPLICANT: Erfle, Douglas
; APPLICANT: Fraser, Janet R.
; APPLICANT: West, Michael H.P.
; APPLICANT: McNicol, Patricia J.
  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
  TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN
COMBINATION
; TITLE OF INVENTION: WITH ANTIBIOTICS
  FILE REFERENCE: 660081.406
; CURRENT APPLICATION NUMBER: US/09/030,619B
; CURRENT FILING DATE: 1998-02-25
; NUMBER OF SEQ ID NOS: 232
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 78
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Indolicidin Analogue
US-09-030-619-78
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
                                               0; Indels
            3; Conservative
                              0; Mismatches
                                                               0; Gaps
                                                                           0;
           7 LKK 9
Qу
```

```
RESULT 27
US-09-030-619-79
; Sequence 79, Application US/09030619B
; Patent No. US20020035061A1
; GENERAL INFORMATION:
; APPLICANT: Krieger, Timothy J.
  APPLICANT: Taylor, Robert
  APPLICANT: Erfle, Douglas
  APPLICANT: Fraser, Janet R.
  APPLICANT: West, Michael H.P.
  APPLICANT: McNicol, Patricia J.
  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
  TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN
COMBINATION
  TITLE OF INVENTION: WITH ANTIBIOTICS
  FILE REFERENCE: 660081.406
  CURRENT APPLICATION NUMBER: US/09/030,619B
  CURRENT FILING DATE: 1998-02-25
  NUMBER OF SEQ ID NOS: 232
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 79
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Indolicidin Analogue
US-09-030-619-79
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
                         100.0%; Pred. No. 1.5e+04;
  Best Local Similarity
            3; Conservative
                              0; Mismatches
                                                      Indels
                                                                            0;
           7 LKK 9
Qу
             \perp
Db
           2 LKK 4
RESULT 28
US-09-030-619-113
; Sequence 113, Application US/09030619B
; Patent No. US20020035061A1
; GENERAL INFORMATION:
  APPLICANT: Krieger, Timothy J.
              Taylor, Robert
  APPLICANT:
  APPLICANT: Erfle, Douglas
; APPLICANT: Fraser, Janet R.
  APPLICANT:
              West, Michael H.P.
  APPLICANT:
              McNicol, Patricia J.
  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
  TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN
COMBINATION
  TITLE OF INVENTION: WITH ANTIBIOTICS
  FILE REFERENCE: 660081.406
; CURRENT APPLICATION NUMBER: US/09/030,619B
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CURRENT FILING DATE: 1998-02-25
  NUMBER OF SEQ ID NOS: 232
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 113
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Cationic Peptide Analogue
US-09-030-619-113 ·
                         27.3%; Score 3; DB 9; Length 11;
 Query Match
                         100.0%; Pred. No. 1.5e+04;
  Best Local Similarity
                             0; Mismatches
 Matches
           3; Conservative
                                               0; Indels
                                                               0; Gaps
                                                                            0;
           7 LKK 9
Qу
             111
           2 LKK 4
RESULT 29
US-09-030-619-114
; Sequence 114, Application US/09030619B
; Patent No. US20020035061A1
; GENERAL INFORMATION:
  APPLICANT: Krieger, Timothy J.
 APPLICANT: Taylor, Robert
  APPLICANT: Erfle, Douglas
  APPLICANT: Fraser, Janet R.
  APPLICANT: West, Michael H.P.
  APPLICANT: McNicol, Patricia J.
  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
  TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN
COMBINATION
  TITLE OF INVENTION:
                       WITH ANTIBIOTICS
  FILE REFERENCE: 660081.406
  CURRENT APPLICATION NUMBER: US/09/030,619B
  CURRENT FILING DATE: 1998-02-25
  NUMBER OF SEQ ID NOS: 232
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 114
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Cationic Peptide Analogue
US-09-030-619-114
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 1.5e+04;
            3; Conservative
                             0; Mismatches
                                                  0; Indels
                                                                0; Gaps
Qу
           7 LKK 9
             111
Db
           2 LKK 4
```

```
RESULT 30
US-09-484-704-16
; Sequence 16, Application US/09484704
; Patent No. US20020081567A1
  GENERAL INFORMATION:
    APPLICANT: Henrickson, Kelly J.
    APPLICANT: Fan, Jiang (n.m.i.)
    TITLE OF INVENTION: VIRUS ASSAY METHOD
    NUMBER OF SEQUENCES: 65
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Quarles & Brady
      STREET: 411 East Wisconsin Avenue
      CITY: Milwaukee
      STATE: Wisconsin
      COUNTRY: U.S.A.
      ZIP: 53202-4497
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/484,704
      FILING DATE:
      CLASSIFICATION:
    ATTORNEY/AGENT INFORMATION:
      NAME: Baker, Jean C.
      REGISTRATION NUMBER: 35,433
      REFERENCE/DOCKET NUMBER: 650053.91126
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (414) 277-5000
      TELEFAX: (414) 271-3552
   INFORMATION FOR SEQ ID NO: 16:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-09-484-704-16
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                            0;
 Matches
Qy
           7 LKK 9
             +111
Db
           2 LKK 4
RESULT 31
US-09-766-412-40
; Sequence 40, Application US/09766412
; Patent No. US20020103129A1
; GENERAL INFORMATION:
; APPLICANT: GE, Ruowen et al.
```

```
; TITLE OF INVENTION: SMALL PEPTIDES HAVING ANTI-ANGIOGENIC AND ENDOTHELIAL
CELL INHIBITION
  TITLE OF INVENTION: ACTIVITY
  FILE REFERENCE: 1781-0215P
  CURRENT APPLICATION NUMBER: US/09/766,412
  CURRENT FILING DATE: 2001-01-11
  NUMBER OF SEQ ID NOS: 50
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 40
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Mammalian
   FEATURE:
   NAME/KEY: misc feature
   OTHER INFORMATION: hFLT2-11
US-09-766-412-40
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
                               0; Mismatches
                                                                            0:
           3; Conservative
                                                0; Indels
                                                                0; Gaps
  Matches
           7 LKK 9
Qу
             +++
           6 LKK 8
Db
RESULT 32
US-09-734-520-55
; Sequence 55, Application US/09734520
; Patent No. US20020115173A1
; GENERAL INFORMATION:
; APPLICANT: Ben-Sasson, Shmuel
  TITLE OF INVENTION: SHORT PEPTIDES FROM THE A-REGION OF
  TITLE OF INVENTION: PROTEIN KINASES WHICH SELECTIVELY MODULATE PROTEIN
KINASE
  TITLE OF INVENTION: ACTIVITY
  FILE REFERENCE: 1242.2003-000
  CURRENT APPLICATION NUMBER: US/09/734,520
  CURRENT FILING DATE: 2000-12-11
  NUMBER OF SEQ ID NOS: 122
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 55
   LENGTH: 11
    TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
    OTHER INFORMATION: plx1
   NAME/KEY: MYRISTATE
    LOCATION: (1)...(0)
    NAME/KEY: AMIDATION
    LOCATION: (0)...(11)
US-09-734-520-55
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
                                                                0; Gaps
          3; Conservative 0; Mismatches
                                                  0; Indels
                                                                            0;
  Matches
```

```
5 VKL 7
Qу
             \pm 111
          9 VKL 11
Db
RESULT 33
US-09-734-520-65
; Sequence 65, Application US/09734520
; Patent No. US20020115173A1
; GENERAL INFORMATION:
; APPLICANT: Ben-Sasson, Shmuel
  TITLE OF INVENTION: SHORT PEPTIDES FROM THE A-REGION OF
  TITLE OF INVENTION: PROTEIN KINASES WHICH SELECTIVELY MODULATE PROTEIN
KINASE
  TITLE OF INVENTION: ACTIVITY
  FILE REFERENCE: 1242.2003-000
  CURRENT APPLICATION NUMBER: US/09/734,520
  CURRENT FILING DATE: 2000-12-11
  NUMBER OF SEQ ID NOS: 122
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 65
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Fyn
   NAME/KEY: MYRISTATE
    LOCATION: (1)...(0)
    NAME/KEY: AMIDATION
    LOCATION: (0)...(11)
US-09-734-520-65
                          27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3; Conservative
                                                                 0; Gaps
                               0; Mismatches
                                                   0; Indels
                                                                             0;
  Matches
           6 KLK 8
Qу
             -111
            2 KLK 4
Db
RESULT 34
US-09-734-520-68
; Sequence 68, Application US/09734520
; Patent No. US20020115173A1
; GENERAL INFORMATION:
; APPLICANT: Ben-Sasson, Shmuel
  TITLE OF INVENTION: SHORT PEPTIDES FROM THE A-REGION OF
   TITLE OF INVENTION: PROTEIN KINASES WHICH SELECTIVELY MODULATE PROTEIN
KINASE
   TITLE OF INVENTION: ACTIVITY
   FILE REFERENCE: 1242.2003-000
  CURRENT APPLICATION NUMBER: US/09/734,520
  CURRENT FILING DATE: 2000-12-11
; NUMBER OF SEQ ID NOS: 122
; SOFTWARE: FastSEQ for Windows Version 4.0
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; SEQ ID NO 68

```
LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Hck
   NAME/KEY: MYRISTATE
   LOCATION: (1)...(0)
   NAME/KEY: AMIDATION
   LOCATION: (0)...(11)
US-09-734-520-68
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
  Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                         0;
           5 VKL 7
Qу
             111
           9 VKL 11
Db
RESULT 35
US-09-734-520-72
; Sequence 72, Application US/09734520
; Patent No. US20020115173A1
; GENERAL INFORMATION:
; APPLICANT: Ben-Sasson, Shmuel
; TITLE OF INVENTION: SHORT PEPTIDES FROM THE A-REGION OF
; TITLE OF INVENTION: PROTEIN KINASES WHICH SELECTIVELY MODULATE PROTEIN
KINASE
; TITLE OF INVENTION: ACTIVITY
; FILE REFERENCE: 1242.2003-000
; CURRENT APPLICATION NUMBER: US/09/734,520
; CURRENT FILING DATE: 2000-12-11
; NUMBER OF SEQ ID NOS: 122
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 72
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Fak
   NAME/KEY: MYRISTATE
   LOCATION: (1)...(0)
   NAME/KEY: AMIDATION
   LOCATION: (0)...(11)
US-09-734-520-72
  Query Match
                        27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
           5 VKL 7
Qу
             \Pi\Pi
           9 VKL 11
Db
```

```
US-09-984-056-45
; Sequence 45, Application US/09984056
; Patent No. US20020120106A1
; GENERAL INFORMATION:
  APPLICANT: BOGOCH, SAMUEL
  APPLICANT: BOGOCH, ELENORE S.
  TITLE OF INVENTION: ANTHRAX AND SMALL POX REPLIKINS AND METHODS OF USE
  FILE REFERENCE: 09425-46903
  CURRENT APPLICATION NUMBER: US/09/984,056
  CURRENT FILING DATE: 2001-10-26
  PRIOR APPLICATION NUMBER: 60/303,396
  PRIOR FILING DATE: 2001-07-09
  PRIOR APPLICATION NUMBER: 60/278,761
  PRIOR FILING DATE: 2001-03-27
  PRIOR APPLICATION NUMBER: 09/146,755
  PRIOR FILING DATE: 1998-09-04
  PRIOR APPLICATION NUMBER: 09/817,144
  PRIOR FILING DATE: 2001-03-27
  PRIOR APPLICATION NUMBER: 08/198,139
  PRIOR FILING DATE: 1994-02-17
  NUMBER OF SEQ ID NOS: 103
  SOFTWARE: PatentIn 2.1
; SEQ ID NO 45
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Arabidopsis thaliana
US-09-984-056-45
                          27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
  Matches 3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                             0;
            9 KKA 11
Qу
             -111
            8 KKA 10
RESULT 37
US-09-957-674-1
; Sequence 1, Application US/09957674
; Patent No. US20020120948A1
; GENERAL INFORMATION:
; APPLICANT: Medical Research Council
  TITLE OF INVENTION: Methods for Expressing Gene Products
  FILE REFERENCE: 18396/2072
  CURRENT APPLICATION NUMBER: US/09/957,674
  CURRENT FILING DATE: 2001-09-20
  PRIOR APPLICATION NUMBER: GB990736
  PRIOR FILING DATE: 1999-03-30
   PRIOR APPLICATION NUMBER: PCT/GB00/01225
  PRIOR FILING DATE: 2000-03-30
  NUMBER OF SEQ ID NOS: 16
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO.1
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Sperm Whale
```

```
Query Match
                         27.3%; Score 3; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.5e+04;
 Matches
                               0; Mismatches
                                                 0; Indels
           3; Conservative
                                                              0; Gaps
                                                                            0;
           7 LKK 9
Qy
             -111
           9 LKK 11
Db
RESULT 38
US-09-966-871-10
; Sequence 10, Application US/09966871
; Patent No. US20020127539A1
; GENERAL INFORMATION:
; APPLICANT: Kopin, Alan S.
  TITLE OF INVENTION: Assays for Identifying Receptors Having
  TITLE OF INVENTION: Alterations in Signaling
  FILE REFERENCE: 00398/512002
  CURRENT APPLICATION NUMBER: US/09/966,871
  CURRENT FILING DATE: 2001-09-28
  PRIOR APPLICATION NUMBER: US 60/236,302
; PRIOR FILING DATE: 2000-09-28
; PRIOR APPLICATION NUMBER: US 60/288,644
; PRIOR FILING DATE: 2001-05-03
; NUMBER OF SEQ ID NOS: 87
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-966-871-10
                         27.3%; Score 3; DB 9; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1.5e+04;
 Matches
           3; Conservative
                              0; Mismatches
                                                0; Indels
                                                              0; Gaps
                                                                            0;
           9 KKA 11
Qу
             \perp 1 \perp 1 \perp
           3 KKA 5
Db
RESULT 39
US-09-988-842-23
; Sequence 23, Application US/09988842
; Patent No. US20020143105A1
; GENERAL INFORMATION:
; APPLICANT: Johansson, Jan
  TITLE OF INVENTION: DISCORDANT HELIX STABILIZATION FOR PREVENTION
  TITLE OF INVENTION: OF AMYLOID FORMATION
  FILE REFERENCE: 12125-002001
  CURRENT APPLICATION NUMBER: US/09/988,842
   CURRENT FILING DATE: 2001-11-19
  PRIOR APPLICATION NUMBER: US 60/251,662
   PRIOR FILING DATE: 2000-12-06
   PRIOR APPLICATION NUMBER: US 60/253,695
```

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PRIOR FILING DATE: 2000-11-20
; NUMBER OF SEQ ID NOS: 26
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 23
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Synthetically generated peptide
US-09-988-842-23
                         27.3%; Score 3; DB 9; Length 11;
 Query Match
 Best Local Similarity
                         100.0%; Pred. No. 1.5e+04;
                                               0; Indels
 Matches
            3; Conservative 0; Mismatches
                                                                0; Gaps
                                                                          0;
           2 GSA 4
Qу
             IIII
           8 GSA 10
RESULT 40
US-09-766-353A-20
; Sequence 20, Application US/09766353A
; Patent No. US20020146406A1
; GENERAL INFORMATION:
  APPLICANT: Regents of the University of Minnesota
  APPLICANT: Mayo, Kevin H.
  TITLE OF INVENTION: POLYPEPTIDES WITH THERAPEUTIC ACTIVITY AND METHODS OF
  TITLE OF INVENTION: USE
  FILE REFERENCE: 110.01120101
; CURRENT APPLICATION NUMBER: US/09/766,353A
; CURRENT FILING DATE: 2001-01-19
; PRIOR APPLICATION NUMBER: 60/177,255
; PRIOR FILING DATE: 2000-01-20
; PRIOR APPLICATION NUMBER: 60/210,297
 PRIOR FILING DATE: 2000-06-08
  NUMBER OF SEQ ID NOS: 20
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 20
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: artificially
synthesized peptide
US-09-766-353A-20
 Query Match
                         27.3%; Score 3; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                0; Gaps
Qу
           6 KLK 8
             \Box
           1 KLK 3
```

```
US-09-867-852-28
; Sequence 28, Application US/09867852
; Patent No. US20020147324A1
; GENERAL INFORMATION:
  APPLICANT: Ausubel, Frederick M.
  APPLICANT: Staskawicz, Brian J.
  APPLICANT: Brent, Andrew F.
  APPLICANT: Dahlbeck, Douglas
  APPLICANT: Katagiri, Fumiaki
  APPLICANT: Kunkel, Barbara N.
  APPLICANT: Mindrinos, Michael N.
  APPLICANT: Yu, Guo-Liang
;
  TITLE OF INVENTION: RPS2 GENE FAMILY, PRIMERS, PROBES, AND
:
  TITLE OF INVENTION: DETECTION METHODS
  FILE REFERENCE: 00786/254002
  CURRENT APPLICATION NUMBER: US/09/867,852
  CURRENT FILING DATE: 2001-05-29
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/301,085
  PRIOR FILING DATE: EARLIER FILING DATE: 1999-04-28
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 08/310,912
  PRIOR FILING DATE: EARLIER FILING DATE: 1994-09-22
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 08/227,360
  PRIOR FILING DATE: EARLIER FILING DATE: 1994-04-13
; NUMBER OF SEQ ID NOS: 208
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 28
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Arabidopsis thaliana
US-09-867-852-28
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3; Conservative 0; Mismatches
                                                   0; Indels
           1 AGS 3
QУ
              111
            6 AGS 8
Db
RESULT 42
US-09-781-988-17
; Sequence 17, Application US/09781988
; Patent No. US20020150881A1
   GENERAL INFORMATION:
        APPLICANT: Ladner, Robert Charles
                    Guterman, Sonia Kosow
                    Roberts, Bruce Lindsay
                   Markland, William
                    Ley, Arthur Charles
                    Kent, Rachel Baribault
        TITLE OF INVENTION: Directed Evolution of No. US20020150881A1el
                             Binding Proteins
        NUMBER OF SEQUENCES: 121
         CORRESPONDENCE ADDRESS:
             ADDRESSEE: Browdy and Neimark
              STREET: 419 Seventh Street, N.W.
```

```
Suite 300
              CITY: Washington,
              STATE: DC
              COUNTRY: USA
              ZIP: 20004
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: WORDPERFECT 4.2
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/781,988
              FILING DATE: 14-Feb-2001
             CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: 07/664,989
             FILING DATE: <Unknown>
             APPLICATION NUMBER: 07/487,063
             FILING DATE: 02-MAR-1990
             APPLICATION NUMBER: 07/240,160
             FILING DATE: 02-SEP-1988
        ATTORNEY/AGENT INFORMATION:
             NAME: Cooper, Iver P.
              REGISTRATION NUMBER: 28005
              REFERENCE/DOCKET NUMBER: LADNER 7
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: 202-628-5197
             TELEFAX: 202-737-3528
    INFORMATION FOR SEQ ID NO: 17:
        SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              TOPOLOGY: linear
        MOLECULE TYPE: protein
         SEQUENCE DESCRIPTION: SEQ ID NO: 17:
US-09-781-988-17
                          27.3%; Score 3; DB 9; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1.5e+04;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
            2 GSA 4
Qу
             111
Db
            6 GSA 8
RESULT 43
US-09-969-192-19
; Sequence 19, Application US/09969192
; Patent No. US20020151027A1
    GENERAL INFORMATION:
        APPLICANT: WICKHAM, THOMAS J.
                    ROELVINK, PETRUS W.
                    KOVESDI, IMRE
        TITLE OF INVENTION: TARGETING ADENOVIRUS WITH USE OF
                             CONSTRAINED PEPTIDE MOTIFS
        NUMBER OF SEQUENCES: 80
```

```
CORRESPONDENCE ADDRESS:
             ADDRESSEE: Leydig, Voit & Mayer, Ltd.
              STREET: Two Prudential Plaza - 49th Floor
              CITY: Chicago
              STATE: Illinois
              COUNTRY: USA
              ZIP: 60601
         COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
         CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/969,192
              FILING DATE: 01-Oct-2001
         PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US 9-455061
              FILING DATE: 06-DEC-1999
             APPLICATION NUMBER: US 9-130225
             FILING DATE: 06-AUG-1998
             APPLICATION NUMBER: US 8-701124
              FILING DATE: 21-AUG-1996
         ATTORNEY/AGENT INFORMATION:
             NAME: Hefner, M. Daniel
              REGISTRATION NUMBER: 41,826
              REFERENCE/DOCKET NUMBER: 213564
    INFORMATION FOR SEQ ID NO: 19:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
             TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 19:
US-09-969-192-19
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
  Matches 3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                            0;
           8 KKK 10
Qу
             -111
Db
            3 KKK 5
RESULT 44
US-09-984-057-45
; Sequence 45, Application US/09984057
; Patent No. US20020151677A1
; GENERAL INFORMATION:
; APPLICANT: BOGOCH, SAMUEL
; APPLICANT: BOGOCH, ELENORE S.
  TITLE OF INVENTION: REPLIKINS AND METHODS OF IDENTIFYING
; TITLE OF INVENTION: REPLIKIN-CONTAINING SEQUENCES
; FILE REFERENCE: 09425-46902
; CURRENT APPLICATION NUMBER: US/09/984,057
; CURRENT FILING DATE: 2001-10-26
; PRIOR APPLICATION NUMBER: 60/303,396
```

```
PRIOR FILING DATE: 2001-07-09
  PRIOR APPLICATION NUMBER: 60/278,761
; PRIOR FILING DATE: 2001-03-27
 PRIOR APPLICATION NUMBER: 09/146,755
  PRIOR FILING DATE: 1998-09-04
  PRIOR APPLICATION NUMBER: 09/817,144
 PRIOR FILING DATE: 2001-03-27
; PRIOR APPLICATION NUMBER: 08/198,139
; PRIOR FILING DATE: 1994-02-17
; NUMBER OF SEQ ID NOS: 90
  SOFTWARE: PatentIn 2.1
; SEQ ID NO 45
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Arabidopsis thaliana
US-09-984-057-45
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
          3; Conservative 0; Mismatches
 Matches
                                               0; Indels
                                                               0; Gaps
                                                                          0;
Qу
           9 KKA 11
             111
Db
           8 KKA 10
RESULT 45
US-09-846-352-1
; Sequence 1, Application US/09846352
; Patent No. US20020161187A1
; GENERAL INFORMATION:
; APPLICANT: Jackowski, George
; TITLE OF INVENTION: Biopolymer Marker Indicative of Disease State Having A
Molecular Weight
; TITLE OF INVENTION: of 1097
; TITLE OF INVENTION: Daltons
; FILE REFERENCE: 2132.027
  CURRENT APPLICATION NUMBER: US/09/846,352
  CURRENT FILING DATE: 2001-04-30
; NUMBER OF SEQ ID NOS: 1
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-846-352-1
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
Qу
           3 SAV 5
             \perp
           7 SAV 9
Db
```

```
US-09-805-301-5
; Sequence 5, Application US/09805301
; Patent No. US20020173456A1
    GENERAL INFORMATION:
         APPLICANT: Smith, Louis C.
                    Sparrow, James T.
                    Hauer, Jochen
                    Mims, Martha P.
         TITLE OF INVENTION: LIPOPHILIC PEPTIDES FOR
                            MACROMOLECULE DELIVERY
         NUMBER OF SEQUENCES: 139
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Lyon & Lyon
              STREET: 633 West Fifth Street
                     Suite 4700
              CITY: Los Angeles
              STATE: California
              COUNTRY: U.S.A.
              ZIP: 90071-2066
         COMPUTER READABLE FORM:
              MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
                           storage
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: IBM P.C. DOS 6.0
              SOFTWARE: Word Perfect 6.1
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/805,301
              FILING DATE: 12-Mar-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/584,043
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Warburg, Richard J.
              REGISTRATION NUMBER: 32,327
              REFERENCE/DOCKET NUMBER: 217/189
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (213) 489-1600
              TELEFAX: (213) 955-0440
              TELEX: 67-3510
    INFORMATION FOR SEQ ID NO: 5:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 5:
US-09-805-301-5
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
  Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
Qу
            8 KKK 10
             Db
           1 KKK 3
```

```
RESULT 47
US-09-805-301-43
; Sequence 43, Application US/09805301
; Patent No. US20020173456A1
    GENERAL INFORMATION:
         APPLICANT: Smith, Louis C.
                    Sparrow, James T.
                    Hauer, Jochen
                    Mims, Martha P.
         TITLE OF INVENTION: LIPOPHILIC PEPTIDES FOR
                             MACROMOLECULE DELIVERY
         NUMBER OF SEQUENCES: 139
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Lyon & Lyon
              STREET: 633 West Fifth Street
                      Suite 4700
              CITY: Los Angeles
              STATE: California
              COUNTRY: U.S.A.
              ZIP: 90071-2066
         COMPUTER READABLE FORM:
              MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
                           storage
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: IBM P.C. DOS 6.0
              SOFTWARE: Word Perfect 6.1
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/805,301
              FILING DATE: 12-Mar-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
            APPLICATION NUMBER: 08/584,043
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Warburg, Richard J.
              REGISTRATION NUMBER: 32,327
              REFERENCE/DOCKET NUMBER: 217/189
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (213) 489-1600
              TELEFAX: (213) 955-0440
              TELEX: 67-3510
    INFORMATION FOR SEQ ID NO: 43:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         FEATURE:
              OTHER INFORMATION:
                                     "Xaa" stands for any naturally
              occurring amino acid and
              analogues thereof.
         SEQUENCE DESCRIPTION: SEQ ID NO: 43:
US-09-805-301-43
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```
27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
          3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
  Matches
            8 KKK 10
Qу
              111
            1 KKK 3
Db
RESULT 48
US-09-805-301-99
; Sequence 99, Application US/09805301
; Patent No. US20020173456A1
    GENERAL INFORMATION:
         APPLICANT: Smith, Louis C.
                    Sparrow, James T.
                    Hauer, Jochen
                    Mims, Martha P.
         TITLE OF INVENTION: LIPOPHILIC PEPTIDES FOR
                             MACROMOLECULE DELIVERY
         NUMBER OF SEQUENCES: 139
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Lyon & Lyon
              STREET: 633 West Fifth Street
                      Suite 4700
              CITY: Los Angeles
              STATE: California
              COUNTRY: U.S.A.
              ZIP: 90071-2066
         COMPUTER READABLE FORM:
              MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
                           storage
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: IBM P.C. DOS 6.0
              SOFTWARE: Word Perfect 6.1
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/805,301
              FILING DATE: 12-Mar-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/584,043
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Warburg, Richard J.
              REGISTRATION NUMBER: 32,327
              REFERENCE/DOCKET NUMBER: 217/189
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (213) 489-1600
              TELEFAX: (213) 955-0440
              TELEX: 67-3510
    INFORMATION FOR SEQ ID NO: 99:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
```

```
SEQUENCE DESCRIPTION: SEQ ID NO: 99:
US-09-805-301-99
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
           8 KKK 10
             1 KKK 3
Db
RESULT 49
US-09-017-743C-121
; Sequence 121, Application US/09017743C
; Patent No. US20020177694A1
    GENERAL INFORMATION:
         APPLICANT: Sette, Alessandro
                    Sidney, John
                    Southwood, Scott
         TITLE OF INVENTION: HLA Binding Peptides and Their
                             Uses
        NUMBER OF SEQUENCES: 146
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Townsend and Townsend and Crew LLP
              STREET: Two Embarcadero Center, Eighth Floor
              CITY: San Francisco
              STATE: CA
              COUNTRY: USA
              ZIP: 94111-3834
         COMPUTER READABLE FORM:
             MEDIUM TYPE: Diskette
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: DOS
              SOFTWARE: FastSEQ for Windows Version 2.0
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/017,743C
              FILING DATE: 03-Feb-1998
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US 08/590,298
              FILING DATE: 23-JAN-1996
         ATTORNEY/AGENT INFORMATION:
              NAME: Parent, Annette S.
              REGISTRATION NUMBER: 42,058
              REFERENCE/DOCKET NUMBER: 018623-008050US
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 415-576-0200
              TELEFAX: 415-576-0300
              TELEX: <Unknown>
    INFORMATION FOR SEQ ID NO: 121:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
```

```
SEQUENCE DESCRIPTION: SEQ ID NO: 121:
US-09-017-743C-121
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3; Conservative 0; Mismatches
                                                                            0;
                                               0; Indels
                                                                0; Gaps
           3 SAV 5
Qу
             -111
           8 SAV 10
Db
RESULT 50
US-09-999-724-76
; Sequence 76, Application US/09999724
; Publication No. US20030022355A1
; GENERAL INFORMATION:
; APPLICANT: WICKHAM, THOMAS J.
  APPLICANT: KOVESDI, IMRE
  APPLICANT: BROUGH, DOUGLAS E.
  TITLE OF INVENTION: VECTORS AND METHODS FOR GENE TRANSFER
  FILE REFERENCE: 212960
  CURRENT APPLICATION NUMBER: US/09/999,724
  CURRENT FILING DATE: 2001-10-24
  PRIOR APPLICATION NUMBER: US 09/101,751
  PRIOR FILING DATE: 1999-01-29
  PRIOR APPLICATION NUMBER: WO 96US19150
  PRIOR FILING DATE: 1996-11-27
  PRIOR APPLICATION NUMBER: US 08/700,846
  PRIOR FILING DATE: 1996-08-21
; PRIOR APPLICATION NUMBER: US 08/701,124
  PRIOR FILING DATE: 1996-08-21
; PRIOR APPLICATION NUMBER: US 08/563,368
; PRIOR FILING DATE: 1995-11-28
; NUMBER OF SEQ ID NOS: 94
 SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 76
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Synthetic
US-09-999-724-76
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
                                                                0; Gaps
           3; Conservative 0; Mismatches 0;
                                                     Indels
                                                                            0;
           8 KKK 10
Qу
              111
            3 KKK 5
RESULT 51
US-09-229-173-41
; Sequence 41, Application US/09229173
; Publication No. US20030027296A1
```

```
GENERAL INFORMATION:
    APPLICANT: Chatterjee, Deb K.
    TITLE OF INVENTION: Cloned DNA Polymerases from Thermotoga
    TITLE OF INVENTION: maritima and Mutants Thereof
    NUMBER OF SEQUENCES: 47
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX, P.L.L.C.
      STREET: 1100 New York Ave., N.W., Suite 600
      CITY: Washington
      STATE: DC
      COUNTRY: USA
      ZIP: 20005-3934
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/229,173
      FILING DATE: 13-JAN-1999
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/706,702
      FILING DATE: 06-SEP-1996
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/689,807
      FILING DATE: 14-AUG-1996
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/537,400
      FILING DATE: 02-OCT-1995
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US 08/576,759
      FILING DATE: 21-DEC-1995
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/537,397
      FILING DATE: 02-OCT-1995
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US 08/525,057
      FILING DATE: 08-SEP-1995
    ATTORNEY/AGENT INFORMATION:
    NAME: Millonig, Robert C.
      REGISTRATION NUMBER: 34,395
     REFERENCE/DOCKET NUMBER: 0942.2800008
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-371-2600
      TELEFAX: 202-371-2540
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: not relevant
    MOLECULE TYPE: peptide
US-09-229-173-41
 Query Match
                        27.3%; Score 3; DB 10; Length 11;
```

Best Local Similarity 100.0%; Pred. No. 1.5e+04;

```
Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           7 LKK 9
Qу
             \perp
            6 LKK 8
Db
RESULT 52
US-09-259-658-44
; Sequence 44, Application US/09259658
; Publication No. US20030032054A1
; GENERAL INFORMATION:
  APPLICANT: Colyer
  APPLICANT:
              Craig
  APPLICANT: Maschio
  APPLICANT: Mezna
                       Compositions And Methods For Monitoring The
  TITLE OF INVENTION:
  TITLE OF INVENTION: Modification State Of A Pair Of Polypeptides
  FILE REFERENCE: colyer 4256/79245
  CURRENT APPLICATION NUMBER: US/09/259,658
  CURRENT FILING DATE: 1999-02-26
  NUMBER OF SEQ ID NOS:
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 44
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
   OTHER INFORMATION: peptide based upon p67srf glycosylation acceptor
   OTHER INFORMATION: site.
US-09-259-658-44
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity
                         100.0%; Pred. No. 1.5e+04;
 Matches
            3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                             0;
            3 SAV 5
Qγ
             \perp
Db
            1 SAV 3
RESULT 53
US-09-906-393A-5
; Sequence 5, Application US/09906393A
; Publication No. US20030039970A1
; GENERAL INFORMATION:
  APPLICANT: Wang, Zhou
;
  APPLICANT: Xiao, Wuhan
  TITLE OF INVENTION: METHOD OF PROGNOSING CANCER AND THE PROTEINS INVOLVED
   FILE REFERENCE: 1720-1-001CIP
  CURRENT APPLICATION NUMBER: US/09/906,393A
  CURRENT FILING DATE: 2001-07-16
  PRIOR APPLICATION NUMBER: 60/218,761
  PRIOR FILING DATE: 2000-07-17
  NUMBER OF SEQ ID NOS: 36
   SOFTWARE: PatentIn version 3.1
```

```
LENGTH: 11
   TYPE: PRT
   ORGANISM: homo sapiens
US-09-906-393A-5
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
           5 VKL 7
Qу
             \mathbf{I}
           6 VKL 8
Db
RESULT 54
US-09-882-291-55
; Sequence 55, Application US/09882291
; Publication No. US20030040472A1
; GENERAL INFORMATION:
  APPLICANT: Zealand Pharmaceuticals A/S
  TITLE OF INVENTION: No. US20030040472A1el Peptide Conjugates
  FILE REFERENCE: 007-2001
; CURRENT APPLICATION NUMBER: US/09/882,291
; CURRENT FILING DATE: 2001-06-15
; NUMBER OF SEQ ID NOS: 77
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 55
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
sequence
US-09-882-291-55
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3: Conservative
                               0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           8 KKK 10
Qу
             -111
            6 KKK 8
RESULT 55
US-09-882-291-64
; Sequence 64, Application US/09882291
; Publication No. US20030040472A1
; GENERAL INFORMATION:
  APPLICANT: Zealand Pharmaceuticals A/S
  TITLE OF INVENTION: No. US20030040472Alel Peptide Conjugates
 FILE REFERENCE: 007-2001
  CURRENT APPLICATION NUMBER: US/09/882,291
  CURRENT FILING DATE: 2001-06-15
; NUMBER OF SEQ ID NOS: 77
  SOFTWARE: PatentIn version 3.1
```

; SEQ ID NO 5

```
; SEQ ID NO 64
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
sequence
US-09-882-291-64
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3; Conservative 0; Mismatches
                                               0; Indels
                                                                0; Gaps
                                                                           0;
 Matches
           8 KKK 10
Qу
             \perp
           6 KKK 8
Db
RESULT 56
US-09-929-266-2
; Sequence 2, Application US/09929266
; Publication No. US20030045694A1
; GENERAL INFORMATION:
; APPLICANT: Brian T. Chait
 APPLICANT: Darin R. Latimer
  APPLICANT: Paul M. Lizardi
; APPLICANT: Eric R. Kershnar
  APPLICANT: Jon S. Morrow
  APPLICANT: Matthew E. Roth
  APPLICANT: Martin J. Mattessich
; APPLICANT: Kevin J. McConnell
  TITLE OF INVENTION: ULTRA-SENSITIVE DETECTION SYSTEMS
  FILE REFERENCE: 01173.0003U2
  CURRENT APPLICATION NUMBER: US/09/929,266
  CURRENT FILING DATE: 2001-08-13
  PRIOR APPLICATION NUMBER: 60/224,939
  PRIOR FILING DATE: 2000-08-11
  PRIOR APPLICATION NUMBER: 60/283,498
  PRIOR FILING DATE: 2000-04-12
 NUMBER OF SEQ ID NOS: 33
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEO ID NO 2
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence; No.
US20030045694Ale=synthetic
   OTHER INFORMATION: construct
US-09-929-266-2
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
 Matches
            3; Conservative
                               0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                            0;
Qу
           1 AGS 3
             111
```

```
RESULT 57
US-09-929-266-4
; Sequence 4, Application US/09929266
; Publication No. US20030045694A1
; GENERAL INFORMATION:
; APPLICANT: Brian T. Chait
  APPLICANT: Darin R. Latimer
  APPLICANT: Paul M. Lizardi
  APPLICANT: Eric R. Kershnar
  APPLICANT: Jon S. Morrow
  APPLICANT: Matthew E. Roth
; APPLICANT: Martin J. Mattessich
; APPLICANT: Kevin J. McConnell
  TITLE OF INVENTION: ULTRA-SENSITIVE DETECTION SYSTEMS
  FILE REFERENCE: 01173.0003U2
  CURRENT APPLICATION NUMBER: US/09/929,266
  CURRENT FILING DATE: 2001-08-13
  PRIOR APPLICATION NUMBER: 60/224,939
  PRIOR FILING DATE: 2000-08-11
  PRIOR APPLICATION NUMBER: 60/283,498
  PRIOR FILING DATE: 2000-04-12
  NUMBER OF SEQ ID NOS: 33
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence; No.
US20030045694Ale=synthetic
   OTHER INFORMATION: construct
US-09-929-266-4
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
            3; Conservative
                                0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
            1 AGS 3
Qу
             111
Db
            1 AGS 3
RESULT 58
US-09-929-266-7
; Sequence 7, Application US/09929266
; Publication No. US20030045694A1
; GENERAL INFORMATION:
; APPLICANT: Brian T. Chait
; APPLICANT: Darin R. Latimer
; APPLICANT: Paul M. Lizardi
 APPLICANT: Eric R. Kershnar
; APPLICANT: Jon S. Morrow
; APPLICANT: Matthew E. Roth
; APPLICANT: Martin J. Mattessich
```

```
APPLICANT: Kevin J. McConnell
  TITLE OF INVENTION: ULTRA-SENSITIVE DETECTION SYSTEMS
  FILE REFERENCE: 01173.0003U2
  CURRENT APPLICATION NUMBER: US/09/929,266
  CURRENT FILING DATE: 2001-08-13
   PRIOR APPLICATION NUMBER: 60/224,939
  PRIOR FILING DATE: 2000-08-11
  PRIOR APPLICATION NUMBER: 60/283,498
  PRIOR FILING DATE: 2000-04-12
  NUMBER OF SEQ ID NOS: 33
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 7
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence; No.
US20030045694Ale=synthetic
    OTHER INFORMATION: construct
US-09-929-266-7
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
          3; Conservative 0; Mismatches
 Matches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
           1 AGS 3
Qу
             -111
Db
           1 AGS 3
RESULT 59
US-09-929-266-8
; Sequence 8, Application US/09929266
; Publication No. US20030045694A1
; GENERAL INFORMATION:
; APPLICANT: Brian T. Chait
 APPLICANT: Darin R. Latimer
  APPLICANT: Paul M. Lizardi
  APPLICANT: Eric R. Kershnar
  APPLICANT: Jon S. Morrow
  APPLICANT: Matthew E. Roth
  APPLICANT: Martin J. Mattessich
  APPLICANT: Kevin J. McConnell
  TITLE OF INVENTION: ULTRA-SENSITIVE DETECTION SYSTEMS
  FILE REFERENCE: 01173.0003U2
  CURRENT APPLICATION NUMBER: US/09/929,266
  CURRENT FILING DATE: 2001-08-13
  PRIOR APPLICATION NUMBER: 60/224,939
  PRIOR FILING DATE: 2000-08-11
  PRIOR APPLICATION NUMBER: 60/283,498
  PRIOR FILING DATE: 2000-04-12
  NUMBER OF SEQ ID NOS: 33
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 8
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
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FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence; No.
US20030045694A1e=synthetic
    OTHER INFORMATION: construct
US-09-929-266-8
                          27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
                              0; Mismatches
           3; Conservative
 Matches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
           1 AGS 3
QУ
              IIII
            7 AGS 9
Db
RESULT 60
US-09-929-266-27
; Sequence 27, Application US/09929266
; Publication No. US20030045694A1
; GENERAL INFORMATION:
  APPLICANT: Brian T. Chait
  APPLICANT: Darin R. Latimer
  APPLICANT: Paul M. Lizardi
  APPLICANT: Eric R. Kershnar
  APPLICANT: Jon S. Morrow
  APPLICANT: Matthew E. Roth
  APPLICANT: Martin J. Mattessich
  APPLICANT: Kevin J. McConnell
  TITLE OF INVENTION: ULTRA-SENSITIVE DETECTION SYSTEMS
  FILE REFERENCE: 01173.0003U2
  CURRENT APPLICATION NUMBER: US/09/929,266
  CURRENT FILING DATE: 2001-08-13
  PRIOR APPLICATION NUMBER: 60/224,939
  PRIOR FILING DATE: 2000-08-11
  PRIOR APPLICATION NUMBER: 60/283,498
  PRIOR FILING DATE: 2000-04-12
  NUMBER OF SEQ ID NOS: 33
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 27
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence; No.
US20030045694Ale=synthetic
   OTHER INFORMATION: construct
US-09-929-266-27
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3; Conservative 0; Mismatches
                                                  0; Indels
                                                                0; Gaps
Qу
           1 AGS 3
              \perp
Db
           1 AGS 3
```

```
RESULT 61
US-09-876-904A-25
; Sequence 25, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 25
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
;
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic SV40 large
Т
   OTHER INFORMATION: protein
US-09-876-904A-25
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
Qу
          8 KKK 10
             Db
           5 KKK 7
RESULT 62
US-09-876-904A-77
; Sequence 77, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 77
; LENGTH: 11
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TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide
    OTHER INFORMATION: to bovine serum albumin
US-09-876-904A-77
 Query Match 27.3%; Score 3; DB 10; Length 11; Best Local Similarity 100.0%; Pred. No. 1.5e+04;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qу
          8 KKK 10
              | | |
Db
           6 KKK 8
RESULT 63
US-09-876-904A-113
; Sequence 113, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 113
  LENGTH: 11
  TYPE: PRT
  ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic c-Myc and
VIH
   OTHER INFORMATION: Tat NLSs
US-09-876-904A-113
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1.5e+04;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
           5 VKL 7
Qу
             111
           3 VKL 5
Db
RESULT 64
US-09-876-904A-273
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; Sequence 273, Application US/09876904A

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; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 273
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Drosophila sp.
    FEATURE:
   OTHER INFORMATION: Recombination repair protein 1
US-09-876-904A-273
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
          3; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
Qу
          8 KKK 10
             111
Db
           6 KKK 8
RESULT 65
US-09-876-904A-354
; Sequence 354, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
 APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
 SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 354
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
    FEATURE:
    OTHER INFORMATION: Human ATF-3 (in basic region that binds DNA)
US-09-876-904A-354
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```
Query Match
                        27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                           0;
           8 KKK 10
Qу
             \perp
           6 KKK 8
Db
RESULT 66
US-09-876-904A-362
; Sequence 362, Application US/09876904A
; Publication No. US20030072794A1
: GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
; TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
: TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
; FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
; CURRENT FILING DATE: 2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 362
   LENGTH: 11
    TYPE: PRT
   ORGANISM: Mus sp.
;
    FEATURE:
    OTHER INFORMATION: Murine LEF-1.
US-09-876-904A-362
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
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 Matches
           3; Conservative
           8 KKK 10
Qγ
             -111
           2 KKK 4
Db
RESULT 67
US-09-876-904A-363
; Sequence 363, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
; TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
; FILE REFERENCE: TB-2002.00
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CURRENT APPLICATION NUMBER: US/09/876,904A
; CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
 NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 363
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
   FEATURE:
   OTHER INFORMATION: Human TCF-1 alpha.
US-09-876-904A-363
  Query Match
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  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
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           8 KKK 10
Qу
             2 KKK 4
Db
RESULT 68
US-09-876-904A-364
; Sequence 364, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 364
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
   FEATURE:
   OTHER INFORMATION: Human TCF-1
US-09-876-904A-364
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
  Matches 3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
Qу
           8 KKK 10
             111
Db
           2 KKK 4
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US-09-876-904A-373
; Sequence 373, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 373
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
   FEATURE:
   OTHER INFORMATION: MBP-1 (class I MHC enhancer binding protein
   OTHER INFORMATION: 1) mw 200 kD.
US-09-876-904A-373
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
                         100.0%; Pred. No. 1.5e+04;
  Best Local Similarity
  Matches
            3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
            8 KKK 10
Qу
             Db
            3 KKK 5
RESULT 70
US-09-876-904A-542
; Sequence 542, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 542
   LENGTH: 11
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RESULT 69

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TYPE: PRT
   ORGANISM: Homo sapiens
   OTHER INFORMATION: Human S6 ribosomal protein (homologous to yeast
   OTHER INFORMATION: S10).
US-09-876-904A-542
  Query Match
                        27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
          3; Conservative 0; Mismatches 0; Indels 0; Gaps
           7 LKK 9
Qу
             -111
           1 LKK 3
Db
RESULT 71
US-09-876-904A-591
; Sequence 591, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
; TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 591
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Unknown Organism
   OTHER INFORMATION: Description of Unknown Organism: Trout testis H1 (194
;
aa).
US-09-876-904A-591
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qу
           9 KKA 11
             i | |
Db
           6 KKA 8
RESULT 72
US-09-876-904A-622
; Sequence 622, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
```

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; APPLICANT: BOULIKAS, TENI
; TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
 PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 622
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Unknown Organism
    FEATURE:
    OTHER INFORMATION: Description of Unknown Organism: Trout testis H6 (60 aa).
US-09-876-904A-622
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
          3; Conservative 0; Mismatches 0; Indels
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                                                                            0;
  Matches
          9 KKA 11
Qу
             -1.11
           3 KKA 5
Db
RESULT 73
US-09-820-053A-126
; Sequence 126, Application US/09820053A
; Publication No. US20030083243A1
; GENERAL INFORMATION:
 APPLICANT: Owen, Donald R.
  TITLE OF INVENTION: SHORT BIOACTIVE PEPTIDES
  FILE REFERENCE: HELX027
  CURRENT APPLICATION NUMBER: US/09/820,053A
  CURRENT FILING DATE: 2001-03-28
; NUMBER OF SEQ ID NOS: 165
  SOFTWARE: PatentIn Ver. 2.1
; SEO ID NO 126
   LENGTH: 11
   TYPE: PRT
   ORGANISM: ARTIFICIAL SEQUENCE
   FEATURE:
   OTHER INFORMATION: SYNTHETIC SEQUENCE
   NAME/KEY: MOD RES
    LOCATION: (11)
    OTHER INFORMATION: AMIDATION
US-09-820-053A-126
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+04;
  Matches
            3; Conservative
                             0; Mismatches
                                                0; Indels
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7 LKK 9
Qу
             111
            8 LKK 10
RESULT 74
US-09-820-053A-127
; Sequence 127, Application US/09820053A
; Publication No. US20030083243A1
; GENERAL INFORMATION:
  APPLICANT: Owen, Donald R.
  TITLE OF INVENTION: SHORT BIOACTIVE PEPTIDES
  FILE REFERENCE: HELX027
  CURRENT APPLICATION NUMBER: US/09/820,053A
; CURRENT FILING DATE: 2001-03-28
; NUMBER OF SEQ ID NOS: 165
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 127
   LENGTH: 11
   TYPE: PRT
   ORGANISM: ARTIFICIAL SEQUENCE
   FEATURE:
   OTHER INFORMATION: SYNTHETIC SEQUENCE
   NAME/KEY: MOD RES
   LOCATION: (11)
   OTHER INFORMATION: AMIDATION
US-09-820-053A-127
                          27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity
                         100.0%; Pred. No. 1.5e+04;
 Matches 3; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
           7 LKK 9
Qу
             7 LKK 9
RESULT 75
US-09-820-053A-132
; Sequence 132, Application US/09820053A
; Publication No. US20030083243A1
; GENERAL INFORMATION:
  APPLICANT: Owen, Donald R.
  TITLE OF INVENTION: SHORT BIOACTIVE PEPTIDES
  FILE REFERENCE: HELX027
  CURRENT APPLICATION NUMBER: US/09/820,053A
  CURRENT FILING DATE: 2001-03-28
; NUMBER OF SEQ ID NOS: 165
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 132
   LENGTH: 11
   TYPE: PRT
   ORGANISM: ARTIFICIAL SEQUENCE
   OTHER INFORMATION: SYNTHETIC SEQUENCE
   NAME/KEY: MOD RES
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LOCATION: (11)

; OTHER INFORMATION: AMIDATION US-09-820-053A-132

Query Match 27.3%; Score 3; DB 10; Length 11;
Best Local Similarity 100.0%; Pred. No. 1.5e+04;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

7 LKK 9 111

7 LKK 9 Db

Search completed: April 8, 2004, 16:35:34

Job time : 31.3077 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

April 8, 2004, 15:30:07; Search time 27.7692 Seconds Run on:

(without alignments)

124.984 Million cell updates/sec

US-09-787-443A-4 Title:

Perfect score: 11

Sequence: 1 AGSAVKLKKKA 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

1017041 seqs, 315518202 residues Searched:

Word size :

Total number of hits satisfying chosen parameters: 460

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

SPTREMBL 25:* Database:

1: sp archea:*

2: sp bacteria:*

3: sp fungi:*

4: sp human:*

5: sp invertebrate:*

6: sp_mammal:*

7: sp_mhc:*

8: sp_organelle:*

9: sp phage:*

10: sp plant:*

11: sp rodent:*

12: sp virus:*

13: sp_vertebrate:*

14: sp unclassified:*

15: sp_rvirus:* 16: sp_bacteriap:*

17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

용 Result Query

Description No. Score Match Length DB ID

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1	3	27.3	11	2	Q9S618	Q9s618 prochloroco
2	3	27.3	11	2	Q44090	Q44090 acholeplasm
3	3	27.3	11	3	Q9HDR9	Q9hdr9 aspergillus
4	3	27.3	11	3	043131	O43131 aspergillus
5	3	27.3	11	3	Q9HDR8	Q9hdr8 aspergillus
6	3	27.3	11	3	Q9HDR7	Q9hdr7 aspergillus
7	3	27.3	11	3	042762	042762 aspergillus
8	3 .	27.3	11	3	043130	043130 aspergillus
9	3	27.3	11	3	Q9HDS3	Q9hds3 aspergillus
10	3	27.3	11	5	Q86D32	Q86d32 trypanosoma
11	3	27.3	11	5	Q86D31	Q86d31 trypanosoma
	3			7		
12		27.3	1.1		077908	077908 oreochromis
13	3	27.3	11	11	Q9QXM6	Q9qxm6 mus musculu
14	2	18.2	11	2	068237	068237 borrelia bu
15	2	18.2	11	2	Q9R790	Q9r790 borrelia ga
16	2	18.2	11	2	Q8RKN1	Q8rkn1 escherichia
17	2	18.2	11	2	Q9L4F7	Q914f7 bacillus ce
18	2	18.2	11	2	Q8L2T4	Q812t4 neisseria m
19	2	18.2	11	2	Q9R5P3	Q9r5p3 serratia ma
20	2	18.2	11	2	P77404	P77404 escherichia
21	2	18.2	11	2	Q93RM6	Q93rm6 staphylococ
22	2	18.2	11	2	P71228	P71228 escherichia
23	2	18.2	11	2	Q9K332	Q9k332 staphylococ
24	2	18.2	11	2	Q9RFZ2	Q9rfz2 mycoplasma
		18.2		2		
25	2		11		P95518	P95518 pasteurella
26	2	18.2	11	2	Q47604	Q47604 escherichia
27	2	18.2	11	2	Q44237	Q44237 anabaena sp
28	2	18.2	11	2	Q9R872	Q9r872 escherichia
29	2	18.2	11	2	Q9R446	Q9r446 neisseria g
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30	. 2	18.2	11	2	Q8GMU3	Q8gmu3 acinetobact
31	2	18.2	11	2	Q8GL24	Q8gl24 borrelia bu
32	2	18.2	11	2	Q8GL19	Q8gl19 borrelia bu
33	2	18.2	11	2	P83537	P83537 lactobacill
	2			2		Q47569 escherichia
34		18.2	11		Q47569	
35	2	18.2	11	2	Q7WUL8	Q7wul8 pseudomonas
36	2	18.2	11	3	042763	O42763 aspergillus
37	2	18.2	11	3	Q9UR95	Q9ur95 pichia angu
38	2	18.2	11	3	Q9HFN8	Q9hfn8 candida rug
				3		
39	2	18.2	11		Q9URG1	Q9urg1 neurospora
40	2	18.2	11	3	060005	060005 aspergillus
41	2	18.2	, 11	3	060007	060007 emericella
42	2	18.2	11	3	060192	060192 aspergillus
43	2	18.2	11	3	060006	060006 aspergillus
44	2	18.2	11	4	Q9Y3G2	Q9y3g2 homo sapien
45	2	18.2	11	4	060761	060761 homo sapien
46	2	18.2	11	4	Q9H4H5	Q9h4h5 homo sapien
47	2	18.2	11	4	Q15997	Q15997 homo sapien
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48			11	4	Q9UCP5	Q9ucp5 homo sapien
49	2	18.2	11	4	Q16234	Q16234 homo sapien
50	2	18.2	11	4	Q9C057	Q9c057 homo sapien
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53	2	18.2	11	4	Q8TDA8	Q8tda8 homo sapien
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56	2	18.2	11	5	Q26092	Q26092 pisaster oc
57	2	18.2	11	5	P82698	P82698 leucophaea
<i>J</i> /	۷.	1.0.2	т.т	J	102000	102000 Tedeophaea

58	2	18.2	11	5	P82699	P82699 le	ucophaea
59	2	18.2	11	5	P82700	P82700 le	ucophaea
60	2	18.2	11	5	Q95PX6	Q95рх6 са	enorhabdi
61	2	18.2	11	6	Q9BDC8	Q9bdc8 po	ngo pygma
62	2	18.2	11	6	Q95J20	Q95j20 eu	lemur ful
63	2	18.2	11	6	Q9XSP7	Q9xsp7 py	gathrix n
64	2	18.2	11	6	Q9TTQ0	Q9ttq0 go	rilla gor
65	2	18.2	11	6	Q9XSP2	Q9xsp2 hy	lobates s
66	2	18.2	11	6	Q9BDQ9	Q9bdq9 go	rilla gor
67	2	18.2	11	6	Q95NB6	Q95nb6 eu	lemur ful
68	2	18.2	11	6	Q9XSP5	Q9xsp5 pa	n troglod
69	2	18.2	11	6	Q95J19	Q95j19 eu	lemur ful
70	2	18.2	11	6	Q9TQS0	Q9tqs0 bo	s taurus
71	2	18.2	11	6	Q9BDD0	Q9bdd0 pa	n troglod
72	2	18.2	11	6	Q9XSP8	Q9xsp8 pr	esbytis j
73	2	18.2	11	6	Q9XSP6	Q9xsp6 po	ngo pygma
74	2	18.2	11	6	Q9BDC9	Q9bdc9 pa	n paniscu
75	2	18.2	11.	6	Q9XSQ4		rilla gor
76	2	18.2	11	7	077898	077898 or	eochromis
77	2	18.2	11	7	077914	077914 or	eochromis
78	2	18.2	11	7	078119	078119 or	
79	2	18.2	11	7	078118	078118 or	
80	2	18.2	11	7	077892	077892 or	
81	2	18.2	11	7	077880	077880 or	
82	2	18.2	11	7	077895	077895 or	
83	2	18.2	11	7	078120	078120 or	
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87	2	18.2	11	7	077913	077913 or	
88	2	18.2	11	7	077894	077894 or	
89	2	18.2	11	7	077907	077907 or	
90	2	18.2	11	7	077897	077897 or	
91	2	18.2	11	7	Q7YP62		mo sapien
92	2	18.2	11	8	Q8HQX5		abdothamn
93	2	18.2	11	8	Q7YKC6		bes cereu
94	2	18.2	11	8	Q7YKA6		ea ilicif
95	2	18.2	11	8	Q7YK19		eudosaman
96	2	18.2	11	8	Q7YK05		acia roem
97	2	18.2	11	8	Q7YK03	_	acia schw
98	2	18.2	11	9	Q38415	Q38415 ba	
99	2	18.2	11	9	Q9T0R6		cteriopha
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ALIGNMENTS

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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
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DT
DE
       Cytochrome b6/f complex subunit IV (Fragment).
GN
       PETD.
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OS
     Prochlorococcus sp.
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OC
OC
     Prochlorococcus.
     NCBI TaxID=1220;
OX
RN
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RP
     Urbach E., Chisholm S.W.;
RA
     "Genetic diversity in Prochlorococcus populations flow cytometrically
RT
     sorted from the Sargasso Sea and Gulf Stream.";
RT
     Limnol. Oceanog. 43:1615-1630(1998).
RL
     EMBL; AF070132; AAD20740.1; -.
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              III
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DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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DE
     Acholeplasma laidlawii.
OS
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OC
OC
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OX
RN
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RP
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RC
     STRAIN=A-EF22;
     Boyer M.J., Jarhede T.K., Tegman V., Wieslander A.;
RA
RT
     "Sequence regions from Acholeplasma laidlawii which restore export of
RT
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     Submitted (JUN-1993) to the EMBL/GenBank/DDBJ databases.
RL
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Db
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
DT
     TrpC polyprotein (Fragment).
DE
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GN
     Aspergillus oryzae.
OS
     Eukaryota; Fungi; Ascomycota; Pezizomycotina; Eurotiomycetes;
OC
     Eurotiales; Trichocomaceae; mitosporic Trichocomaceae; Aspergillus.
OC
OX
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RN
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RP
     SEQUENCE FROM N.A.
RC
     STRAIN=NRRL 448;
     Geiser D.M., Dorner J.W., Horn B.W., Taylor J.W.;
RA
RT
     "The phylogenetics of mycotoxin and sclerotium production in
RT
     Aspergillus flavus and Aspergillus oryzae.";
     Submitted (APR-2000) to the EMBL/GenBank/DDBJ databases.
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     NON TER
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Qy
              111
            2 AGS 4
Dh
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
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DE
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GN
     TRPC.
OS
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     Eukaryota; Funqi; Ascomycota; Pezizomycotina; Eurotiomycetes;
OC
OC
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OX
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RC
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RX
     Geiser D.M., Pitt J.I., Taylor J.W.;
RA
     "Cryptic speciation and recombination in the aflatoxin-producing
RT
     fungus Aspergillus flavus.";
RT
     Proc. Natl. Acad. Sci. U.S.A. 95:388-393(1998).
RL
RN
     SEQUENCE FROM N.A.
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Geiser D.M., Dorner J.W., Horn B.W., Taylor J.W.;
RA
RT
     "The phylogenetics of mycotoxin and sclerotium production in
     Aspergillus flavus and Aspergillus oryzae.";
RT
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RL
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     Geiser D.M., Dorner J.W., Horn B.W., Taylor J.W.;
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            2 AGS 4
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OS
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OC
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OC
     NCBI TaxID=5062;
OX
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RP
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     Geiser D.M., Dorner J.W., Horn B.W., Taylor J.W.;
RA
     "The phylogenetics of mycotoxin and sclerotium production in
RT
     Aspergillus flavus and Aspergillus oryzae.";
RT
     Submitted (APR-2000) to the EMBL/GenBank/DDBJ databases.
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FT
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             -111
            2 AGS 4
Db
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     01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
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OS
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OC
     Eurotiales; Trichocomaceae; mitosporic Trichocomaceae; Aspergillus.
OC
OX
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RN
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RC
     Geiser D.M., Dorner J.W., Horn B.W., Taylor J.W.;
RA
     "The phylogenetics of mycotoxin and sclerotium production in
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OC
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     Geiser D.M., Pitt J.I., Taylor J.W.;
RA
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     fungus aspergillus flavus.";
RT
     Proc. Natl. Acad. Sci. U.S.A. 95:388-393(1998).
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OS
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OC
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RX
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RA
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
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OS
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OC
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     Geiser D.M., Dorner J.W., Horn B.W., Taylor J.W.;
RA
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RT
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OS
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OC
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OX
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RC
     STRAIN=Dm28c;
     MEDLINE=22557728; PubMed=12670512;
RX
     Sturm N.R., Vargas N.S., Westenberger S.J., Zingales B.,
RA
     Campbell D.A.;
RA.
RT
     "Evidence for multiple hybrid groups in Trypanosoma cruzi.";
     Int. J. Parasitol. 33:269-279(2003).
RL
     EMBL; AF545075; AAP21903.1; -.
DR
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1114 MW; CCC1B31E7772CDDD CRC64;
SO
                          27.3%; Score 3; DB 5; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+04;
             3; Conservative
                                 0; Mismatches
                                                    0;
                                                      Indels
                                                                  0; Gaps
                                                                              0;
            9 KKA 11
Qу
              +11
            9 KKA 11
Db
RESULT 11
Q86D31
ID
     Q86D31
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q86D31;
     01-JUN-2003 (TrEMBLrel. 24, Created)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DΤ
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Histone H1 (Fragment).
DE
     Trypanosoma cruzi.
OS
OC
     Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Trypanosoma.
OX
     NCBI TaxID=5693;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=Sylvio X10;
     MEDLINE=22557728; PubMed=12670512;
RX
     Sturm N.R., Vargas N.S., Westenberger S.J., Zingales B.,
RA
RA
     Campbell D.A.;
     "Evidence for multiple hybrid groups in Trypanosoma cruzi.";
RT
     Int. J. Parasitol. 33:269-279(2003).
RL
DR
     EMBL; AF545076; AAP21906.1; -.
FT
     NON TER
                  11
                         11
SO
     SEQUENCE
                11 AA; 1174 MW; CCD1B21E7772CDDD CRC64;
  Query Match
                          27.3%; Score 3; DB 5; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+04;
             3; Conservative
                                 0; Mismatches
                                                      Indels
                                                                  0; Gaps
                                                                              0;
                                                    0;
            9 KKA 11
Qу
              +++
```

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RESULT 12
077908
                                            11 AA.
ID
     077908
                 PRELIMINARY;
                                    PRT;
     077908;
AC
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DТ
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 2 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
OC
     Cichlidae; Oreochromis.
OX
     NCBI TaxID=8128;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RX
     MEDLINE=98315113; PubMed=9649539;
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
RT
     class II B loci.";
     Genetics 149:1527-1537(1998).
RL
     EMBL; AF050019; AAC41358.1; -.
DR
     NON TER
FT
                   1
                          1
     NON TER
                  11
                         11
FT
     SEQUENCE 11 AA;
                        1261 MW; 4346CE9A7EB69EB3 CRC64;
SQ
                          27.3%; Score 3; DB 7; Length 11;
  Query Match
  Best Local Similarity
                          100.0%;
                                   Pred. No. 1.5e+04;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0;
                                                                       Gaps
                                                                               0;
            3 SAV 5
Qу
              III
            9 SAV 11
Db
RESULT 13
Q9QXM6
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     090XM6
AC
     090XM6;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Glutamate receptor A (Fragment).
     Mus musculus (Mouse).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OC
OX
     NCBI TaxID=10090;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Bass B.L., Aruscavage P.J.;
     "A phylogenetic analysis reveals an unusual sequence conservation
RT
     within introns involved in RNA editing.";
RT
RL
     Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
```

```
EMBL; AF201342; AAF23954.1; -.
DR
     GO; GO:0004872; F:receptor activity; IEA.
DR
KW
     Receptor.
     NON TER
FT
                   1
                          1
     NON TER
FT
                  11
                         11
     SEQUENCE
                        1077 MW; C85710C5732771AD CRC64;
SQ
                11 AA;
                          27.3%; Score 3; DB 11; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+04;
 Matches
            3; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 GSA 4
Qy
              III
            8 GSA 10
Db
RESULT 14
068237
ID
    068237
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     068237;
     01-AUG-1998 (TrEMBLrel. 07, Created)
DT
DT
     01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Plasmid cp32-4, possible partition proteins (Fragment).
DE
OS
     Borrelia burgdorferi (Lyme disease spirochete).
OG
     Plasmid cp32-4.
     Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
OC
    NCBI TaxID=139;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=B31;
    MEDLINE=98361033; PubMed=9695920;
RX
     Stevenson B., Casjens S., Rosa P.;
RA
RT
     "Evidence of past recombination events among the genes encoding the
RT
     Erp antigens of Borrelia burgdorferi.";
    Microbiology 144:1869-1879(1998).
RL
     EMBL; AF022481; AAC35449.1; -.
ĎR
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
KW
     Plasmid.
    NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA; 1237 MW; 50E3B714D45B5DD7 CRC64;
SQ
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
             2; Conservative 0; Mismatches
 Matches
                                                    0;
                                                       Indels
                                                                      Gaps
                                                                              0;
            7 LK 8
Qу
              11
            9 LK 10
Db
RESULT 15
Q9R790
ID
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
     Q9R790
AC
     09R790;
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
```

```
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Outer surface protein C (Fragment).
GN
     OSPC.
     Borrelia garinii.
OS
     Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
OC
     NCBI TaxID=29519;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=G25:
RC
     MEDLINE=97426044; PubMed=9282748;
RX
     Tilly K., Casjens S., Stevenson B., Bono J.L., Samuels D.S., Hogan D.,
RA
RA
     Rosa P.;
     "he Borrelia burgdorferi circular plasmid cp26: conservation of
RТ
     plasmid structure and targeted inactivation of the ospC gene.";
RT
     Mol. Microbiol. 25:361-374(1997).
RL
     EMBL; U93700; AAC45535.1; -.
DR
DR
     GO; GO:0009279; C:external outer membrane (sensu Gram-negativ. . .; IEA.
DR
     GO; GO:0003793; F:defense/immunity protein activity; IEA.
     GO; GO:0006952; P:defense response; IEA.
DR
DR
     InterPro; IPR001800; Lipoprotein 6.
DR
     Pfam; PF01441; Lipoprotein 6; 1.
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1250 MW; 0868D864C5B731A4 CRC64;
SQ
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             2; Conservative
            3 SA 4
Qу
              7 SA 8
Db
RESULT 16
Q8RKN1
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
ID
     Q8RKN1
AC
     O8RKN1:
     01-JUN-2002 (TrEMBLrel. 21, Created)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     Beta-lactamase CTX-M-9 (Fragment).
_{
m DE}
GN
     BLACTX-M-9.
OS
     Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
     Enterobacteriaceae; Escherichia.
OX
     NCBI TaxID=562;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=743-D;
RC
     Sabate M., Navarro F., Miro E., Campoy S., Mirelis B., Barbe J.,
RA
RA
RT
     "A novel complex sull-type integron in Escherichia coli carrying the
RT
     bla(CTX-M-9) gene.";
RL
     Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AY092058; AAM15718.1; -.
FT
     NON TER
                   1
                          1
                11 AA; 1071 MW; C26BF418D050440D CRC64;
SQ
     SEQUENCE
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Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
             2; Conservative 0; Mismatches
  Matches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            3 SA 4
Qy
              11
            2 SA 3
Db
RESULT 17
09L4F7
ID
     O9L4F7
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
     09L4F7;
AC
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
DT
     01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
     Phosphatidylinositol-specific phospholipase C (PI-PLC)
DE
DE
     (Fragment).
     PLCA.
GN
OS
     Bacillus cereus.
OC
     Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
     NCBI TaxID=1396;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=ATCC 14579 type strain;
RC
     MEDLINE=20055637; PubMed=10589720;
RX
     Okstad O., Gominet M., Purnelle B., Rose M., Lereclus D., Kolsto A.B.;
RA
     "Sequence analysis of three Bacillus cereus loci under PIcR-regulated
RT
     genes encoding degradative enzymes and enterotoxin.";
RT
     Microbiology 145:3129-3138(1999).
RL
DR
     EMBL; AJ243711; CAB69804.1; -.
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1335 MW;
                                  4277A30E20572333 CRC64;
SQ
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
             2; Conservative 0; Mismatches 0; Indels
  Matches
                                                                  0; Gaps
                                                                              0;
            8 KK 9
Qу
              11
            4 KK 5
Db
RESULT 18
Q8L2T4
                 PRELIMINARY;
                                           11 AA.
ID
     Q8L2T4
                                   PRT;
AC
     Q8L2T4;
DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DE
     Histidinol phosphatase (Fragment).
OS
     Neisseria meningitidis.
OC
     Bacteria; Proteobacteria; Betaproteobacteria; Neisseriales;
OC
     Neisseriaceae; Neisseria.
OX
     NCBI TaxID=487;
RN
     [1]
```

```
STRAIN=126E;
RC
     MEDLINE=22051050; PubMed=12055303;
RX
     Zhu P., Klutch M.J., Bash M.C., Tsang R.S.W., Ng L.K., Tsai C.M.;
RA.
     "Genetic Diversity of Three Lqt Loci for Biosynthesis of
RT
     Lipooligosaccharide (LOS) in Neisseria Species.";
RT
     Microbiology 148:1833-1844(2002).
RL
     EMBL; AF470685; AAM33538.1; -.
DR
FT
     NON TER
                  11
                         11
     SEOUENCE
                11 AA; 1273 MW; 01EC828D0AA72050 CRC64;
SO
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
  Matches
                                                                              0;
             2: Conservative
                               0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
            6 KL 7
Qу
              11
Db
            2 KL 3
RESULT 19
09R5P3
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
ΙĐ
     Q9R5P3
AC
     Q9R5P3;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     SM2=NUCLEASE (Fragment).
DE
OS
     Serratia marcescens.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
     Enterobacteriaceae; Serratia.
OX
     NCBI TaxID=615;
RN
     [1]
RP
     SEQUENCE.
RX
     MEDLINE=92134331; PubMed=1663739;
     Bannikova G.E., Blagova E.V., Dementiev A.A., Morgunova E.Yu.,
RA
     Mikchailov A.M., Shlyapnikov S.V., Varlamov V.P., Vainshtein B.K.;
RA
     "Two isoforms of Serratia marcescens nuclease. Crystallization and
RT
     preliminary X-ray investigation of the enzyme.";
RT
     Biochem. Int. 24:813-822(1991).
RL
     PIR; A27356; A27356.
DR
FT
     NON TER
                   1
                          1
     NON TER
                  11
                         11
FT
     SEQUENCE
                11 AA; 1179 MW; 6DF18EE04AA045BB CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
  Matches
             2; Conservative
                               0; Mismatches
                                                    0;
                                                        Indels
                                                                  0; Gaps
                                                                              0;
            4 AV 5
Qу
              11
Dh
           10 AV 11
RESULT 20
P77404
ID
     P77404
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
```

SEQUENCE FROM N.A.

RP

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P77404;
AC
DT
     01-FEB-1997 (TrEMBLrel. 02, Created)
     01-FEB-1997 (TrEMBLrel. 02, Last sequence update)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
DT
     DNA sequence downstream of the ECOPRRI HSD locus (Fragment).
DE
     HSDR.
GN
     Escherichia coli.
OS
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
     Enterobacteriaceae; Escherichia.
OX
     NCBI TaxID=562;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=97206151; PubMed=9157244;
RX
RA
     Tyndall C., Lehnherr H., Sandmeier U., Kulik E., Bickle T.A.;
     "The type IC hsd loci of the enterobacteria are flanked by DNA with
RT
     high homology to the phage P1 genome: implications for the evolution
RT
RT
     and spread of DNA restriction systems.";
     Mol. Microbiol. 23:729-736(1997).
RL
     EMBL; X98145; CAA66840.1; -.
DR
DR
     EMBL; X98144; CAA66839.1; -.
FT
     NON TER
SO
     SEOUENCE
                11 AA; 1259 MW; 714AB092A4072734 CRC64;
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
             2; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            7 LK 8
Qу
              \mathbf{I}
Db
            9 LK 10
RESULT 21
Q93RM6
ID
     Q93RM6
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q93RM6;
     01-DEC-2001 (TrEMBLrel. 19, Created)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DE
     Lipophilic protein affecting bacterial lysis and methicillin
DE
     resistance (Fragment).
OS
     Staphylococcus aureus.
OC
     Bacteria; Firmicutes; Bacillales; Staphylococcus.
OX
     NCBI TaxID=1280;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=SRM551;
RA
     Maki H.;
RT
     "Upstream region of llm gene.";
RL
     Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AB000542; BAB62080.1; -.
FT
     NON TER
                  11
                         11
SO
     SEQUENCE
                11 AA; 1191 MW; 4AC763F4C2C72727 CRC64;
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
  Matches 2; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
```

```
4 AV 5
Qу
              Db
            8 AV 9
RESULT 22
P71228
                 PRELIMINARY;
                                    PRT:
                                            11 AA.
TD
     P71228
AC
     P71228;
DT
     01-FEB-1997 (TrEMBLrel. 02, Created)
DT
     01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DΕ
     Nitrate/nitrite sensor transmitter (Fragment).
GN
     NARO.
OS
     Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
     Enterobacteriaceae; Escherichia.
OX
     NCBI TaxID=562;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=K-12;
RX
     MEDLINE=92374842; PubMed=1508040;
     Chiang R.C., Cavicchioli R., Gunsalus R.P.;
RA
     "Identification and characterization of narQ, a second nitrate sensor
RT
     for nitrate-dependent gene regulation in Escherichia coli.";
RT
     Mol. Microbiol. 6:1913-1923(1992).
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=K-12;
     MEDLINE=97113461; PubMed=8955321;
RX
     Cavicchioli R., Kolesnikow T., Chiang R.C., Gunsalus R.P.;
RA
     "Characterization of the aegA locus of Escherichia coli: control of
RT
     gene expression in response to anaerobiosis and nitrate.";
RT
     J. Bacteriol. 178:6968-6974(1996).
RL
DR
     EMBL; L34011; AAB46943.1; -.
FT
     NON TER
                  11
                          11
                11 AA; 1200 MW;
                                   52E1CFFCA2D77403 CRC64;
     SEQUENCE
SO
  Query Match
                           18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
                                                    0;
  Matches
             2; Conservative
                               0; Mismatches
                                                       Indels
                                                                   0; Gaps
                                                                               0;
            5 VK 6
Qу
              \pm 1
            3 VK 4
Db
RESULT 23
Q9K332
                                    PRT;
                                            11 AA.
ID
     Q9K332
                 PRELIMINARY;
AC
     Q9K332;
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
DT
DE
     Geh (Fragment).
```

GN

GEH.

```
Staphylococcus aureus.
OS
OC
     Bacteria; Firmicutes; Bacillales; Staphylococcus.
     NCBI TaxID=1280;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=VARIOUS STRAINS;
RX
    MEDLINE=20187516; PubMed=10722640;
RA
     Cramton S.E., Schnell N.F., Gotz F., Bruckner R.;
     "Identification of a new repetitive element in Staphylococcus
RT
     aureus.";
RT
     Infect. Immun. 68:2344-2348(2000).
RL
DR
     EMBL; AF195967; AAF60251.1; -.
DR
     EMBL; AF195963; AAF60243.1; -.
DR
     EMBL; AF195964; AAF60245.1; -.
DR
     EMBL; AF195965; AAF60247.1; -.
     EMBL; AF195966; AAF60249.1; -.
DR
FT
    NON TER
                   1
                          1
     SEQUENCE
                11 AA; 1262 MW; 4F978F86AAB1A723 CRC64;
SQ
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
                                                   0; Indels
                                                                             0;
             2; Conservative
                                0; Mismatches
                                                                 0; Gaps
 Matches
            6 KL 7
Qу
              11
            4 KL 5
Db
RESULT 24
Q9RFZ2
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ΙD
    Q9RFZ2
AС
     Q9RFZ2;
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DΤ
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Fructose biphosphate aldolase (Fragment).
DE
GN
     FBA.
OS
    Mycoplasma mycoides subsp. capri.
     Bacteria; Firmicutes; Mollicutes; Mycoplasmataceae; Mycoplasma.
OC
    NCBI TaxID=40477;
OX
RN
    [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=PG3;
RC
RX
    MEDLINE=20193983; PubMed=10727835;
     Thiaucourt F., Lorenzon S., David A., Breard A.;
RA
RT
     "Phylogeny of the Mycoplasma mycoides cluster as shown by sequencing
     of a putative membrane protein gene.";
RT
RL
    Vet. Microbiol. 72:251-268(2000).
DR
     EMBL; AF162998; AAF15255.1; -.
FT
     NON TER
                  11
                         11
     SEQUENCE
                                  50B0881A3331FB57 CRC64;
SQ
                11 AA; 1371 MW;
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
            2; Conservative 0; Mismatches
                                                                 0; Gaps
                                                                             0;
  Matches
                                                 0; Indels
```

```
RESULT 25
P95518
                                    PRT;
                                            11 AA.
ID
     P95518
                 PRELIMINARY;
AC
     P95518;
DT
     01-MAY-1997 (TrEMBLrel. 03, Created)
     01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Ribosomal protein RpsA (Fragment).
DE
GN
     RPSA.
     Pasteurella haemolytica.
OS
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Pasteurellales;
     Pasteurellaceae; Mannheimia.
OC
     NCBI TaxID=75985;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=PHL101;
RC
     MEDLINE=97164347; PubMed=9011038;
RX
     Highlander S.K., Garza O., Brown B.J., Koby S., Oppenheim A.B.;
RA
     "Isolation and characterization of the integration host factor genes
RT
     of Pasteurella haemolytica.";
RT
     FEMS Microbiol. Lett. 146:181-188(1997).
RL
     EMBL; U56139; AAC44845.1; -.
DR
     NON TER
FT
                   1
     SEQUENCE
                11 AA; 1168 MW; 7A4BFD38D339CDDB CRC64;
SQ
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
                              0; Mismatches
                                                                  0; Gaps
                                                                               0;
             2; Conservative
                                                    0; Indels
           10 KA 11
Qу
              7 KA 8
Db
RESULT 26
Q47604
     047604
                 PRELIMINARY;
                                    PRT:
                                            11 AA.
ID
AC
     047604:
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DE
     REase protein (Fragment).
GN
     REASE.
     Escherichia coli.
OS
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
     Enterobacteriaceae; Escherichia.
OC
OX
     NCBI TaxID=562;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=91139577; PubMed=1995588;
RX
     Tao T., Bourne J.C., Blumenthal R.M.;
RA
     "A family of regulatory genes associated with type II restriction-
RT
RT
     modification systems.";
```

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J. Bacteriol. 173:1367-1375(1991).
     EMBL; M63621; AAA24560.1; -.
DR
     NON TER
                  11
FT
                         11
     SEQUENCE
                11 AA; 1296 MW;
                                  3039A71A34472AB7 CRC64;
SO
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
             2; Conservative 0; Mismatches 0; Indels
  Matches
                                                                  0; Gaps
                                                                              0;
            6 KL 7
Qу
              II
            8 KL 9
Db
RESULT 27
044237
     Q44237
                 PRELIMINARY;
                                   PRT:
ID
AC
     Q44237;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Glutamine synthetase (Fragment).
DE
     GLNA.
GN
OS
     Anabaena sp. (strain PCC 7120).
     Bacteria; Cyanobacteria; Nostocales; Nostocaceae; Nostoc.
OC
     NCBI TaxID=103690;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=PCC 7120;
RC
     Warner L.E., Ligon P.J., Stahel A.W., Curtis S.E.;
RA
     "The apcF gene of Anabaena sp. strain PCC 7120 is regulated by
RT
     nitrogen and the apcF and glnA promoters overlap.";
RT
RL
     Submitted (MAY-1995) to the EMBL/GenBank/DDBJ databases.
RN
     SEQUENCE FROM N.A.
RP
     STRAIN=PCC 7120;
RC
RA
     Scappino L.A.;
     Submitted (FEB-1995) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; U21853; AAA65652.1; -.
DR
     NON TER
FT
                  11.
                         11
     SEQUENCE
                11 AA; 1316 MW; 2000580E32CB06C7 CRC64;
SQ
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
  Matches
             2; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
            7 LK 8
Qу
              \mathbf{I}
Db
            8 LK 9
RESULT 28
Q9R872
                                           11 AA.
ID
     Q9R872
                 PRELIMINARY;
                                   PRT;
AC
     Q9R872;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DТ
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
```

RL

```
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΕ
     Dihydrofolate reductase (Fragment).
     DFR1.
GN
     Escherichia coli.
OS
OG
     Plasmid r483.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
     NCBI TaxID=562;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     TRANSPOSON=Tn7:
     Hansson K., Sundstrom L., Pelletier A., Roy P.H.;
RA
     "Sequence and function of the second type of integron in Tn7.";
RT
     Submitted (SEP-1997) to the EMBL/GenBank/DDBJ databases.
RL
RN
RP
     SEQUENCE FROM N.A.
RC
     TRANSPOSON=Tn7;
RX
    MEDLINE=82220022; PubMed=6283361;
     Lichtenstein C., Brenner S.;
RA
     "Unique insertion site of Tn7 in the E. coli chromosome.";
RT
     Nature 297:601-603(1982).
RL
RN
     [3]
     SEQUENCE FROM N.A.
RP
RC
     TRANSPOSON=Tn7;
    MEDLINE=83290694; PubMed=6411680;
RX
     Simonsen C.C., Chen E.Y., Levinson A.D.;
RA
     "Identification of the type I trimethoprim-resistant dihydrofolate
RT
     reductase specified by the Escherichia coli R-plasmid R483: Comparison
RT
RT
     with procaryotic and eucaryotic dihydrofolate reductases.";
     J. Bacteriol. 155:1001-1008(1983).
RL
RN
     [4]
     SEQUENCE FROM N.A.
RP
RC
     TRANSPOSON=Tn7;
    MEDLINE=83272957; PubMed=6308574;
RX
     Fling M.E., Richards C.;
RA
     "The nucleotide sequence of the trimethoprim-resistant dihydrofolate
RT
     reductase gene harbored by Tn7.";
RT
     Nucleic Acids Res. 11:5147-5158(1983).
RL
DR
     EMBL; AJ001816; CAA05032.1; -.
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
KW
     Plasmid.
FT
     NON TER
                  11
                         11
SO
     SEQUENCE
                11 AA; 1221 MW; 92014864C2C69735 CRC64;
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
 Matches
             2; Conservative 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            6 KL 7
Qу
              \Box
Db
            2 KL 3
RESULT 29
Q9R446
                                   PRT;
                                            11 AA.
               PRELIMINARY;
ID
    Q9R446
AC
    Q9R446;
```

DT

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DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
     Carbamoyl-phosphate synthase subunit A (Fragment).
DE
GN
     CARA.
OS
     Neisseria gonorrhoeae.
     Bacteria; Proteobacteria; Betaproteobacteria; Neisseriales;
OC
     Neisseriaceae; Neisseria.
OC
     NCBI TaxID=485;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=MS11, and FA1090;
RC
     MEDLINE=95291461; PubMed=7773412;
RX
     Lawson F.S., Billowes F.M., Dillon J.A.;
RA
     "Organization of carbamoyl-phosphate synthase genes in Neisseria
RT
     gonorrhoeae includes a large, variable intergenic sequence which is
RT
RT
     also present in other Neisseria species.";
RL
     Microbiology 141:0-0(0).
RN
     [2]
     SEQUENCE FROM N.A.
RP
     STRAIN=MS11, and FA1090;
RC
RA
     Brinkman F.S.L., Francis F.M., Dillon J.R.;
RT
     "Complexity of the variable sequence between the carbamoyl-phosphate
     synthase genes of Neisseria species.";
RT
RL
     Submitted (OCT-1997) to the EMBL/GenBank/DDBJ databases.
     EMBL; AF029363; AAC78453.1; -.
DR
     EMBL; AF029362; AAC78452.1; -.
DR
     NON TER
FT
                   1
                          1
     SEQUENCE
                11 AA; 1178 MW; 0C07A8E3DDD33694 CRC64;
SQ
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
           10 KA 11
Qу
              1 |
            6 KA 7
Db
RESULT 30
Q8GMU3
     Q8GMU3
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
ID
AC
     Q8GMU3;
DT
     01-MAR-2003 (TrEMBLrel. 23, Created)
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Putative catalase isozyme (Fragment).
GN
     KATA.
     Acinetobacter lwoffii.
OS
OG
     Plasmid pKLH202.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC
     Moraxellaceae; Acinetobacter.
OX
     NCBI_TaxID=28090;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=TC108;
     Kholodii G.Y., Yurieva O.V., Mindlin S.Z., Gorlenko Z.M.,
RA
```

```
Nikiforov V.G.;
RA
RT
     "pKLH2-like aberrant transposons and possible mechanisms of their
     dissemination.";
RT
     Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AJ250245; CAC80800.1; -.
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
DR
KW
     Plasmid.
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1233 MW; 81A15757B333276A CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
  Matches
             2; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qy
            8 KK 9
              \mathbf{I}
Db
            6 KK 7
RESULT 31
Q8GL24
                                   PRT;
                                           11 AA.
ID
    Q8GL24
                 PRELIMINARY;
AC
     Q8GL24;
     01-MAR-2003 (TrEMBLrel. 23, Created)
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     PF-50 protein (Fragment).
DE
GN
     PF-50.
     Borrelia burgdorferi (Lyme disease spirochete).
OS
     Plasmid group cp32-6.
OG
     Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
OC
OX
     NCBI TaxID=139;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=Sh-2-82;
RC
     Stevenson B., Miller J.C.;
RA
RT
     "Comparative analyses of Borrelia burgdorferi erp genes and their cp32
RT
     prophages: conservation amidst diversity.";
     Submitted (AUG-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AY142093; AAN17876.1; -. .
DR
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
KW
     Plasmid.
FT
     NON TER
                   1
                          1
                11 AA; 1366 MW; 4E441D5330504373 CRC64;
SQ
     SEQUENCE
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
                                0; Mismatches
  Matches
            2; Conservative
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
Qy
            7 LK 8
              10 LK 11
Db
RESULT 32
Q8GL19
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
    Q8GL19
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```
AC
     Q8GL19;
ÐΤ
     01-MAR-2003 (TrEMBLrel. 23, Created)
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     PF-50 protein (Fragment).
DE
     PF-50.
GN
     Borrelia burgdorferi (Lyme disease spirochete).
OS
OG
     Plasmid group cp32-11.
OC
     Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
OX
     NCBI TaxID=139;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Sh-2-82;
RA
     Stevenson B., Miller J.C.;
RT
     "Comparative analyses of Borrelia burgdorferi erp genes and their cp32
RT
     prophages: conservation amidst diversity.";
     Submitted (AUG-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AY142096; AAN17880.1; -.
DR
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
KW
     Plasmid.
FT
     NON TER
                          1
                   1
     SEQUENCE
                11 AA; 1366 MW; 4E441D5337204373 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
             2; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
  Matches
                                                                              0;
            7 LK 8
Qy
              11
Db
            7 LK 8
RESULT 33
P83537
ID
     P83537
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
АC
     P83537;
DT
     01-JUN-2003 (TrEMBLrel. 24, Created)
     01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΕ
     Unknown protein from 2D-page (Fragment).
OS
     Lactobacillus sanfranciscensis (Lactobacillus sanfrancisco).
     Bacteria; Firmicutes; Lactobacillales; Lactobacillaceae;
OC
     Lactobacillus.
OC
     NCBI TaxID=1625;
OX
RN
     [1]
RP
     SEQUENCE, AND INDUCTION.
RC
     STRAIN=DSM 20451;
RX
     PubMed=12112860;
RA
     Drews O., Weiss W., Reil G., Parlar H., Wait R., Goerg A.;
     "High pressure effects step-wise altered protein expression in
RT
     Lactobacillus sanfranciscensis.";
RT
     Proteomics 2:765-774(2002).
RL
     -!- INDUCTION: BY ELEVATED HYDROSTATIC PRESSURE.
CC
     -!- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED MW OF THIS UNKNOWN
CC
         PROTEIN IS: 65 KDA.
CC
FT
     NON TER
                  1
                          1
FT
     NON TER
                  11
                         11
```

```
SEQUENCE
              11 AA; 1249 MW; D96C8231B771ADD9 CRC64;
SQ
 Query Match
                          18.2%; Score 2; DB 2; Length 11;
 Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 GS 3
QУ
              \Box
            1 GS 2
Db
RESULT 34
047569
                 PRELIMINARY;
ID
    Q47569
                                   PRT;
                                           11 AA.
AC
    047569;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
    Hypothetical protein (Fragment).
DE
OS
    Escherichia coli.
    Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
    Enterobacteriaceae; Escherichia.
OC
    NCBI TaxID=562;
OX
RN
    [1]
    SEQUENCE FROM N.A.
RP
    STRAIN=K-12;
RC
    MEDLINE=94162733; PubMed=7764507;
RX
     Yamada M., Yanai S., Talkuder A.;
RA
     "Analysis of products of the Escherichia coli genomic genes and
RT
     regulation of their expressions: an applicable procedure for genomic
RT
     analysis of other microorganisms.";
RT
    Biosci. Biotechnol. Biochem. 58:117-120(1994).
RL
DR
    EMBL; D21156; BAA04692.1; -.
KW
    Hypothetical protein.
FT
    NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1322 MW; COB8E40E37672732 CRC64;
SQ
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.5e+05;
            2; Conservative 0; Mismatches
                                                                              0;
 Matches
                                                   0; Indels
                                                                  0; Gaps
            7 LK 8
Qу
              1.1
            8 LK 9
Db
RESULT 35
Q7WUL8
ID
    Q7WUL8
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     O7WUL8;
DT
     01-OCT-2003 (TrEMBLrel. 25, Created)
     01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
     PdtJ (Fragment).
DE
     PDTJ.
GN
OS
     Pseudomonas putida.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
```

```
Pseudomonadaceae; Pseudomonas.
     NCBI TaxID=303;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=DSM 3601;
RC
     Lewis T.A., Leach L., Morales S.E., Austin P.R., Hartwell H.J.,
RA
     Kaplan B., Forker C., Meyer J.-M.;
RA
     "Physiological and molecular genetic evaluation of the dechlorination
RT
     agent, pyridine-2,6-bis (monothiocarboxylic acid) (PDTC), as a
RТ
     secondary siderophore of Pseudomonas sp.";
RT
     Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AY319946; AAQ01713.1; -.
DR
     NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA; 1143 MW; C22A6E13A050587D CRC64;
SO
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            1 AG 2
Qу
              \mathbf{I}
            4 AG 5
Dh
RESULT 36
042763
     042763
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
TD
AC
     042763;
     01-JUN-1998 (TrEMBLrel. 06, Created)
DT
     01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
DT
     TrpC polyprotein (Fragment).
DE
GN
     TRPC.
OS
     Aspergillus oryzae.
     Eukaryota; Fungi; Ascomycota; Pezizomycotina; Eurotiomycetes;
OC
     Eurotiales; Trichocomaceae; mitosporic Trichocomaceae; Aspergillus.
OC
OX
     NCBI TaxID=5062;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=NRRL469;
RC
     MEDLINE=98081883; PubMed=9419385;
RX
     Geiser D.M., Pitt J.I., Taylor J.W.;
RA
     "Cryptic speciation and recombination in the aflatoxin-producing
RT
     fungus aspergillus flavus.";
RT
     Proc. Natl. Acad. Sci. U.S.A. 95:388-393(1998).
RL
DR
     EMBL; AF036868; AAC01703.1; -.
KW
     Polyprotein.
FT
     NON TER
                  11
                         11
     SEQUENCE
                                  8FA1D6C3F2C72AB5 CRC64;
SQ
                11 AA; 1162 MW;
                           18.2%; Score 2; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
             2; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
            2 GS 3
Qу
              \perp 1 \perp
Db
            3 GS 4
```

OC

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RESULT 37
09UR95
     Q9UR95
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
     09UR95;
AC
     01-MAY-2000 (TrEMBLrel. 13, Created)
DТ
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
DТ
     Heat shock protein 60 homolog (Fragment).
DE
     Pichia angusta (Yeast) (Hansenula polymorpha).
OS
     Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC
     Saccharomycetales; Saccharomycetaceae; Pichia.
OC.
     NCBI TaxID=4905;
OX
RN
     [1]
RP
     SEQUENCE.
RX
     MEDLINE=93223840; PubMed=8096822;
     Evers M.E., Huhse B., Titorenko V.I., Kunau W.H., Hartl F.U.,
RA
     Harder W., Veenhuis M.;
RA
     "Affinity purification of molecular chaperones of the yeast Hansenula
RT
     polymorpha using immobilized denatured alcohol oxidase.";
RT
     FEBS Lett. 321:32-36(1993).
RL
                                 71872C1779C3372B CRC64;
              11 AA; 1230 MW;
     SEQUENCE
SQ
  Query Match
                          18.2%; Score 2; DB 3; Length 11;
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            2; Conservative
            7 LK 8
Qу
              11
            5 LK 6
Db
RESULT 38
O9HFN8
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ΙD
     Q9HFN8
AC
     Q9HFN8;
     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
     Acyl carrier protein (Fragment).
DE
GN
     ACP.
     Candida rugosa (Yeast) (Candida cylindracea).
OS
     Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC
     Saccharomycetales; mitosporic Saccharomycetales; Candida.
OC
OX
     NCBI TaxID=5481;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RA
     Biasio W.;
     Thesis (2000), University of Vienna, Austria.
RL
     EMBL; AJ279021; CAC08812.1; -.
DR
     NON TER
FT
                   1
                          1
                11 AA; 1274 MW; D2E4CC3976C40732 CRC64;
SO
     SEQUENCE
                          18.2%; Score 2; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
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                                                                  0; Gaps
                                                                              0;
            2; Conservative 0; Mismatches
```

```
4 AV 5
Qу
              11
           10 AV 11
Db
RESULT 39
Q9URG1
                 PRELIMINARY:
ID
     Q9URG1
                                    PRT:
                                            11 AA.
AC
     Q9URG1;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DΤ
     Cytochrome C oxidase subunit 2 (Fragment).
DE
OS
     Neurospora crassa.
     Eukaryota; Funqi; Ascomycota; Pezizomycotina; Sordariomycetes;
OC
OC
     Sordariomycetidae; Sordariales; Sordariaceae; Neurospora.
OX
     NCBI TaxID=5141;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=92035058; PubMed=1657411;
RX
RA
     Lemire E.G., Percy J.A., Correia J.M., Crowther B.M., Nargang F.E.;
     "Alteration of the cytochrome c oxidase subunit 2 gene in the [exn-5]
RT
RT
     mutant of Neurospora crassa.";
     Curr. Genet. 20:121-127(1991).
RL
FT
     NON TER
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                          1
     NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA;
                        1222 MW; 936B1558C7605DC5 CRC64;
SQ
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                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            3 SA 4
Qy
              \mathbf{H}
Db
            4 SA 5
RESULT 40
060005
     060005
ID
                 PRELIMINARY;
                                    PRT:
                                            11 AA.
     060005;
AC
DT
     01-AUG-1998 (TrEMBLrel. 07, Created)
     01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DE
     TrpC (Fragment).
GN
     TRPC.
OS
     Aspergillus versicolor.
     Eukaryota; Funqi; Ascomycota; Pezizomycotina; Eurotiomycetes;
OC
OC
     Eurotiales; Trichocomaceae; mitosporic Trichocomaceae; Aspergillus.
OX
     NCBI TaxID=46472;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=NRRL 226;
RA
     Geiser D.M., Taylor J.W., Smith G.W., Ritchie K.B.;
RT
     "Aspergillus sydowii causing sea fan mortality.";
```

RL

Nature 0:0-0(1998).

```
EMBL; AF058967; AAC15743.1; -.
DR
     NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA; 1142 MW; 8C71EBD3B2C72DC5 CRC64;
SO
  Query Match
                          18.2%; Score 2; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
             2; Conservative
                               0; Mismatches
                                                                              0;
  Matches
                                                   0; Indels
                                                                  0; Gaps
            3 SA 4
Qу
              11
            4 SA 5
Db
RESULT 41
060007
ID
     060007
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     060007;
DT
     01-AUG-1998 (TrEMBLrel. 07, Created)
     01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DE
     TrpC (Fragment).
     TRPC.
GN
     Emericella violacea.
OS
OC
     Eukaryota; Fungi; Ascomycota; Pezizomycotina; Eurotiomycetes;
     Eurotiales; Trichocomaceae; Emericella.
OC
     NCBI TaxID=41738;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=ATCC 16813;
RC
     Geiser D.M., Taylor J.W., Smith G.W., Ritchie K.B.;
RA
     "Aspergillus sydowii causing sea fan mortality.";
RT
     Nature 0:0-0(1998).
RL
     EMBL; AF058975; AAC15751.1; -.
DR
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1142 MW; 8C71EBD3B2C72DC5 CRC64;
SO
  Query Match
                          18.2%; Score 2; DB 3; Length 11;
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
             2; Conservative
                                0; Mismatches
  Matches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            3 SA 4
QΫ
              1.1
            4 SA 5
Db
RESULT 42
060192
     060192
ID
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     060192;
     01-AUG-1998 (TrEMBLrel. 07, Created)
DT
     01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
DT
     01-OCT-2001 (TrEMBLrel. 18, Last annotation update)
DT
DE
     TRPC (Fragment).
     TRPC.
GN
OS
     Aspergillus sydowii.
OC
     Eukaryota; Funqi; Ascomycota; Pezizomycotina; Eurotiomycetes;
OC
     Eurotiales; Trichocomaceae; mitosporic Trichocomaceae; Aspergillus.
```

```
NCBI TaxID=75750;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=NRRL 249, H640, SA-25, SS-7, FK-11, and NRRL 244;
RC
     Geiser D.M., Taylor J.W., Smith G.W., Ritchie K.B.;
RA
     Nature 0:0-0(1998).
RL
     EMBL; AF058974; AAC15750.1; -.
DR
DR
     EMBL; AF058968; AAC15744.1; -.
     EMBL; AF058969; AAC15745.1; -.
DR
     EMBL; AF058970; AAC15746.1; -.
DR
DR
     EMBL; AF058971; AAC15747.1; -.
DR
     EMBL; AF058973; AAC15749.1; -.
                  11
FT
     NON TER
                         11
                11 AA; 1142 MW; 8C71EBD3B2C72DC5 CRC64;
SO
     SEQUENCE
                          18.2%; Score 2; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
                                                                  0; Gaps
                                                                               0;
             2; Conservative
                                 0; Mismatches
                                                    0: Indels
  Matches
            3 SA 4
Qу
              11
            4 SA 5
Db
RESULT 43
060006
                                    PRT;
                                            11 AA.
                 PRELIMINARY;
ΙD
     060006
     060006;
AC
     01-AUG-1998 (TrEMBLrel. 07, Created)
DT
     01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DE
     TrpC (Fragment).
     TRPC.
GN
     Aspergillus sydowii.
OS
     Eukaryota; Fungi; Ascomycota; Pezizomycotina; Eurotiomycetes;
OC
     Eurotiales; Trichocomaceae; mitosporic Trichocomaceae; Aspergillus.
OC
     NCBI TaxID=75750;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=NRRL 242;
     Geiser D.M., Taylor J.W., Smith G.W., Ritchie K.B.;
RA
RT
     "Aspergillus sydowii causing sea fan mortality.";
     Nature 0:0-0(1998).
RL
     EMBL; AF058972; AAC15748.1; -.
DR
     NON TER
                  11
FT
                11 AA; 1110 MW; 8C71F0C3F2C72DC5 CRC64;
     SEQUENCE
SQ
                           18.2%; Score 2; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
                                  0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
             2; Conservative
            3 SA 4
Qу
              11
            4 SA 5
Db
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Q9Y3G2
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
     Q9Y3G2
AC
     Q9Y3G2;
     01-NOV-1999 (TrEMBLrel. 12, Created)
DT
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     LSFR2 protein (Fragment).
DE
GN
     LSFR2.
OS
    Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
    NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
    MEDLINE=99299247; PubMed=10369878;
RA
     Gilley J., Fried M.;
     "Extensive gene order differences within regions of conserved synteny
RT
     between the Fugu and human genomes: implications for chromosomal
RT
     volution and the cloning of disease genes.";
RT
     Hum. Mol. Genet. 8:1313-1320(1999).
RL
     EMBL; Y17456; CAB44349.1; -.
DR
    NON TER
FT
                   1
                          1
     NON TER
                  11
                         11
FT
                11 AA; 1342 MW; 68C5E5D7A8772324 CRC64;
SQ
     SEQUENCE
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
                                0; Mismatches 0; Indels
                                                                              0;
                                                                  0; Gaps
  Matches
             2; Conservative
            6 KL 7
Qу
              11
            5 KL 6
Db
RESULT 45
060761
ID
     060761
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     060761:
     01-AUG-1998 (TrEMBLrel. 07, Created)
DT
     01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
DТ
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     NPT-1 protein (Fragment).
DE
     NPT-1.
GN
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=98207718; PubMed=9545579;
RX
     Taketani Y., Miyamoto K., Chikamori M., Tanaka K., Yamamoto H.,
RA
     Tatsumi S., Morita K., Takeda E.;
RA
     "Characterization of the 5' flanking region of the human NPT-1
RT
     Na+/phosphate cotransporter gene.";
RT
     Biochim. Biophys. Acta 1396:267-272(1998).
RL
     EMBL; D83236; BAA25645.1; -.
DR
FT
     NON TER
                  11
                         11
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SEQUENCE
              11 AA; 1358 MW; 884E2D4E6734044A CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 4; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+05;
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qy
            8 KK 9
              10 KK 11
Db
RESULT 46
O9H4H5
ΙD
     Q9H4H5
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q9H4H5;
DT
     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
     01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DT
     DJ661I20.2 (Novel helicase C-terminal domain and SNF2 N-terminal
DE
DE
     domains containing protein) (Fragment).
     DJ620E11.1.
GN
os
     Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Skuce C.;
RA
     Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AL031669; CAC17164.2; -.
DR
     NON TER
FT
                   1
                          1
     NON TER
                  11
                         11
FT
     SEQUENCE
                11 AA; 1420 MW; 5EB2C32A3326D053 CRC64;
SQ
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
                                0; Mismatches 0;
  Matches
             2; Conservative
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            8 KK 9
Qу
             7 KK 8
Db
RESULT 47
015997
ID
     015997
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
     Q15997;
AC
     01-NOV-1996 (TrEMBLrel. 01, Created)
\mathrm{D}\mathbf{T}
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     RARA protein (Fragment).
GN
     RARA.
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI TaxID=9606;
RN
     [1]
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SEQUENCE FROM N.A.
RP
     MEDLINE=93222087; PubMed=7682097;
RX
     Dong S., Geng J.P., Tong J.H., Wu Y., Cai J.R., Sun G.L., Chen S.R.,
RA
     Wang Z.Y., Larsen C.J., Berger R., et al;
RA
     "Breakpoint clusters of the PML gene in acute promyelocytic leukemia:
RT
     primary structure of the reciprocal products of the PML-RARA gene in a
RT
     patient with t(15;17).";
RT
     Genes Chromosomes Cancer 6:133-139(1993).
RL
     EMBL: S57794; AAD13888.1; -.
DR
     PIR; I54081; I54081.
DR
     NON TER
FT
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                11 AA; 1277 MW; 33C70E22CDDDC417 CRC64;
SO
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  Query Match
                          18.2%; Score 2; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
                                 0; Mismatches
                                                    0; Indels
             2; Conservative
                                                                  0; Gaps
                                                                              0;
            4 AV 5
Qу
              11
            7 AV 8
Db
RESULT 48
Q9UCP5
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
ΙD
     Q9UCP5
AC
     Q9UCP5;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
ÐΤ
DΕ
     Aggrecan core protein (Fragment).
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI TaxID=9606;
RN
     [1]
     SEQUENCE.
RP
     MEDLINE=92235266; PubMed=1569188;
RX
     Sandy J.D., Flannery C.R., Neame P.J., Lohmander L.S.;
RA
     J. Clin. Invest. 89:1512-1516(1992).
RL
     GO; GO:0005201; F:extracellular matrix structural constituent; TAS.
DR
DR
     GO; GO:0006508; P:proteolysis and peptidolysis; NAS.
     GO; GO:0001501; P:skeletal development; NAS.
DR
     NON TER
FT
                   1
                          1
     NON TER
FT
                  11
                         11
SO
     SEQUENCE
                11 AA; 1149 MW; 8FBFE8DFE72042D5 CRC64;
  Query Match
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  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
  Matches
             2; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                              0;
            2 GS 3
Qу
              3 GS 4
Db
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RESULT 49 Q16234

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ΙD
     Q16234
                                           11 AA.
                 PRELIMINARY;
                                   PRT;
AC
     Q16234;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     HuD protein (Fragment).
DE
     HUD.
GN
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=94349312; PubMed=8069866;
RX
     Sekido Y., Bader S.A., Carbone D.P., Johnson B.E., Minna J.D.;
RA
     "Molecular analysis of the HuD gene encoding a paraneoplastic
RT
RT
     encephalomyelitis antigen in human lung cancer cell lines.";
RL
     Cancer Res. 54:4988-4992(1994).
     EMBL; S73887; AAD14142.1; -.
DR
     PIR; I52708; I52708.
DR
     NON TER
FT
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1289 MW; 2EDCF20E204415A7 CRC64;
  Query Match
                          18.2%; Score 2; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
  Matches
             2; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                              0;
                                                                  0; Gaps
            7 LK 8
Qу
              11
            8 LK 9
Db
RESULT 50
Q9C057
ID
     Q9C057
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q9C057;
     01-JUN-2001 (TrEMBLrel. 17, Created)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
DT
DE
     HEX (Fragment).
GN
     HEX.
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Oyama Y., Kurabayashi M., Nagai R., Shimomura Y., Sekiguchi K.;
RT
     "Human Hex 5'-flanking sequence.";
RL
     Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AF182950; AAK12833.1; -.
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1125 MW; 2644D7FE686761F7 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
  Matches
            2; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
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```
1 AG 2
Qу
              11
           10 AG 11
Db
RESULT 51
O8NFN9
                 PRELIMINARY;
                                    PRT:
                                            11 AA.
ID
     Q8NFN9
AC
     O8NFN9;
DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Corticotropin releasing hormone receptor 1 (Fragment).
GN
     CRHR1.
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Parham K.L., Catalano R., Hillhouse E.W.;
RA
     "Identification of the Promoter Region of the Human Type 1 CRH
RT
RT
     Receptor Gene.";
     Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF488558; AAM55213.1; -.
DR
     GO; GO:0004872; F:receptor activity; IEA.
DR
     Receptor.
KW
     NON TER
                  11
                         11
FT
     SEQUENCE
                        1236 MW;
                                  ECEE030D0736C761 CRC64;
                11 AA;
SQ
  Ouerv Match
                           18.2%;
                                  Score 2; DB 4; Length 11;
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
                                                                               0;
                                 0; Mismatches
                                                    0; Indels
                                                                       Gaps
  Matches
             2; Conservative
            5 VK 6
Qу
              10 VK 11
Db
RESULT 52
Q8NI03
                 PRELIMINARY;
                                    PRT:
                                            11 AA.
ΙD
     C01N8Q
     Q8NI03;
AC.
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
     25 hydroxyvitamin d3 1-alpha hydroxylase (Fragment).
DΕ
os
     Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Ebert R., Schneider D., Jovanovic M., Adamski J., Jakob F.;
RA
     Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
RL
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EMBL; AF500480; AAM21669.1; -.

DR

```
FT
     NON TER
                  11
                         11
     SEQUENCE
                        1298 MW; 82C14E84CB533731 CRC64;
SQ
                11 AA;
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
                                                                              0;
             2; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0;
                                                                      Gaps
 Matches
            7 LK 8
Qу
              11
            5 LK 6
Db
RESULT 53
Q8TDA8
ID
     Q8TDA8
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     08TDA8;
DT
     01-JUN-2002 (TrEMBLrel. 21, Created)
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DΤ
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     Glutathione synthetase (Fragment).
DE
OS
     Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
\circ c
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Cho Y.-W., Lee Y.-Y., Lim C.-J.;
RA
     "Cloning and characterization of glutathione synthetase gene from
RT
     human placenta DNA.";
RT
     Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF485789; AAL91591.1; -.
DR
FT
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                         11
                11 AA; 1235 MW; 1CE28D1E35B86374 CRC64;
SQ
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             2; Conservative
            2 GS 3
Qу
              11
            6 GS 7
Db
RESULT 54
Q9UC46
ID
     Q9UC46
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
     Q9UC46;
AC
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Neutrophil inhibitor peptide, NIP=POLYMORPHONUCLEAR neutrophil
DE
     inhibitor peptide.
DΕ
OS
     Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
oc
OX
     NCBI TaxID=9606;
RN
     [1]
```

```
MEDLINE=96326114; PubMed=8703476;
RX
     Cooper J.A.Jr., Culbreth R.R.;
RA
     "Characterization of a neutrophil inhibitor peptide harvested from
RT
     human bronchial lavage: homology to influenza A nucleoprotein.";
RT
     Am. J. Respir. Cell Mol. Biol. 15:207-215(1996).
RL
     GO; GO:0005576; C:extracellular; NAS.
DR
     GO; GO:0030236; P:anti-inflammatory response; NAS.
DR
                11 AA; 1262 MW; 951A1C3279C9DB45 CRC64;
SQ
     SEOUENCE
  Query Match
                          18.2%; Score 2; DB 4; Length 11;
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
                               0; Mismatches
 Matches
             2; Conservative
                                                   0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
Qу
            2 GS 3
              11
Db
            3 GS 4
RESULT 55
Q9UH72
                                           11 AA.
                 PRELIMINARY;
                                   PRT;
ID
     Q9UH72
AC
     Q9UH72;
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     V1-vascular vasopressin receptor AVPR1A (Fragment).
DΕ
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
RP
     SEOUENCE FROM N.A.
RA
     Thibonnier M., Willard H.F., Jeunemaitre X.;
     "Study of V1-vascular vasopressin receptor gene microsatellite
RT
     polymorphisms in human essential hypertension.";
RT
     Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF208541; AAF18470.1; -.
DR
     GO; GO:0004872; F:receptor activity; IEA.
DR
KW
     Receptor.
FT
     NON TER
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                         11
     SEQUENCE
                11 AA; 1071 MW; 8653B8E3B7687DC5 CRC64;
SO
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  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
  Matches
             2; Conservative
                                 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            3 SA 4
Qу
              11
Db
            4 SA 5
RESULT 56
Q26092
                                   PRT;
                                           11 AA.
ΙD
     Q26092
                 PRELIMINARY;
AC
     026092;
     01-NOV-1996 (TrEMBLrel. 01, Created)
```

RP

SEQUENCE.

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01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Sea StAR histone H2B gene 5'region (Fragment).
DE
     Pisaster ochraceus (Sea star).
OS
     Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Asterozoa;
OC
     Asteroidea; Forcipulatacea; Forcipulatida; Asteriidae; Pisaster.
OC
     NCBI TaxID=7612;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     TISSUE=Sperm;
     Howell A.M., Cool D., Hewitt J., Ydenberg B., Smith M.J., Honda B.M.;
RA
     "Organization and Unusual Expression of Histone Genes in the Sea Star
RT
RT
     Pisaster ochraceus.";
     J. Mol. Evol. 25:29-36(1987).
RL
DR
     EMBL; X05619; CAA29106.1; -.
FT
     NON TER
                  11
                         11
                11 AA; 1128 MW; 5173974A3865BDD3 CRC64;
     SEQUENCE
SQ
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  Query Match
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  Best Local Similarity
                               0; Mismatches
                                                  0; Indels
                                                                      Gaps
                                                                              0;
             2; Conservative
  Matches
           10 KA 11
Qу
              \perp
            4 KA 5
Db
RESULT 57
P82698
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
    P82698
ΙD
     P82698;
AC
     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Periviscerokinin-1 (LEM-PVK-1).
DE
     Leucophaea maderae (Madeira cockroach),
OS
     Nauphoeta cinerea (Cinereous cockroach) (Gray cockroach),
OS
     Blaberus craniifer,
OS
     Blaptica dubia, and
OS
    Gromphadorina portentosa (Cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC
     Blaberidae; Leucophaea.
OC
     NCBI TaxID=6988, 6990, 6982, 132935, 36953;
OX
RN
     SEQUENCE, FUNCTION, AND MASS SPECTROSCOPY.
RP
RC
     TISSUE=ABDOMINAL PERISYMPATHETIC ORGANS;
     MEDLINE=20307624; PubMed=10849006;
RX
     Predel R., Kellner R., Baggerman G., Steinmetzer T., Schoofs L.;
RA
     "Identification of novel periviscerokinins from single neurohaemal
RT
     release sites in insects. MS/MS fragmentation complemented by Edman
RT
     degradation.";
RT
     Eur. J. Biochem. 267:3869-3873(2000).
RL
     -!- FUNCTION: MEDIATES VISCERAL MUSCLE CONTRACTILE ACTIVITY
CC
         (MYOTROPIC ACTIVITY).
CC
     -!- MASS SPECTROMETRY: MW=1090.6; METHOD=MALDI.
CC
     GO; GO:0007218; P:neuropeptide signaling pathway; IEA.
```

```
KW
     Neuropeptide; Amidation.
     MOD RES
                                  AMIDATION.
FT
                  11
                         11
     SEQUENCE
                11 AA; 1091 MW;
                                  2C2D80E2D7605728 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 5; Length 11;
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
                                 0; Mismatches
                                                                               0;
             2; Conservative
                                                    0; Indels
                                                                  0; Gaps
  Matches
            2 GS 3
Qу
              \mathbf{I}
            1 GS 2
Db
RESULT 58
P82699
     P82699
ID
                 PRELIMINARY;
                                   PRT:
                                            11 AA.
AC
     P82699;
DT
     01-MAR-2001 (TrEMBLrel. 16, Created)
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Periviscerokinin-2 (LEM-PVK-2).
DE
     Leucophaea maderae (Madeira cockroach),
OS
     Nauphoeta cinerea (Cinereous cockroach) (Gray cockroach),
OS
OS
     Blaberus craniifer,
     Blaptica dubia, and
OS
     Gromphadorina portentosa (Cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC
OC
     Blaberidae; Leucophaea.
     NCBI TaxID=6988, 6990, 6982, 132935, 36953;
OX
RN
     SEQUENCE, FUNCTION, AND MASS SPECTROSCOPY.
RP
RC
     TISSUE=ABDOMINAL PERISYMPATHETIC ORGANS;
     MEDLINE=20307624; PubMed=10849006;
RX
     Predel R., Kellner R., Baggerman G., Steinmetzer T., Schoofs L.;
RA
     "Identification of novel periviscerokinins from single neurohaemal
RT
     release sites in insects. MS/MS fragmentation complemented by Edman
RT
     degradation.";
RT
     Eur. J. Biochem. 267:3869-3873(2000).
RL
     -!- FUNCTION: MEDIATES VISCERAL MUSCLE CONTRACTILE ACTIVITY
CC
         (MYOTROPIC ACTIVITY).
CC
     -!- MASS SPECTROMETRY: MW=1102.6; METHOD=MALDI.
CC
     GO; GO:0007218; P:neuropeptide signaling pathway; IEA.
DR
KW
     Neuropeptide; Amidation.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEOUENCE
                11 AA;
                        1103 MW;
                                  2F4D9FFD85B05728 CRC64;
                          18.2%;
                                  Score 2; DB 5; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
             2; Conservative
                                  0; Mismatches
                                                                       Gaps
                                                                               0;
  Matches
                                                    0; Indels
            2 GS 3
Qy
              П
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RESULT 59

1 GS 2

Db

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P82700
     P82700
                                            11 AA.
ΙD
                 PRELIMINARY;
                                   PRT;
     P82700;
AC
     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΤ
     Periviscerokinin-3 (LEM-PVK-3).
DE
OS
     Leucophaea maderae (Madeira cockroach),
     Nauphoeta cinerea (Cinereous cockroach) (Gray cockroach),
OS
OS
     Blaberus craniifer,
OS
     Blaptica dubia (Argentinian wood cockroach), and
OS
     Gromphadorina portentosa (Cockroach).
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC
OC
     Blaberidae; Leucophaea.
OX
     NCBI TaxID=6988, 6990, 6982, 132935, 36953;
RN
RP
     SEQUENCE, FUNCTION, AND MASS SPECTROSCOPY.
     TISSUE=ABDOMINAL PERISYMPATHETIC ORGANS;
RC
     MEDLINE=20307624; PubMed=10849006;
RX
     Predel R., Kellner R., Baggerman G., Steinmetzer T., Schoofs L.;
RA
     "Identification of novel periviscerokinins from single neurohaemal
RT
     release sites in insects. MS/MS fragmentation complemented by Edman
RT
     degradation.";
RT
     Eur. J. Biochem. 267:3869-3873(2000).
RL
     -!- FUNCTION: MEDIATES VISCERAL MUSCLE CONTRACTILE ACTIVITY
CC
         (MYOTROPIC ACTIVITY).
CC
     -!- MASS SPECTROMETRY: MW=1146.6; METHOD=MALDI.
CC
     GO; GO:0007218; P:neuropeptide signaling pathway; IEA.
DR
KW
     Neuropeptide; Amidation.
                  11
FT
     MOD RES
                                  AMIDATION.
                         11
     SEQUENCE
                11 AA; 1147 MW; 2F4D9FF2D7605698 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 5; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+05;
             2; Conservative
                                                                  0; Gaps
                                                                              0;
                               0; Mismatches
                                                   0; Indels
  Matches
          . 2 GS 3
Qу
              1 GS 2
Db
RESULT 60
Q95PX6
ID
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                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     Q95PX6;
DT
     01-DEC-2001 (TrEMBLrel. 19, Created)
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
     Hypothetical protein.
DE
GN
     ZK1236.8.
OS
     Caenorhabditis elegans.
     Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
OC
OC
     Rhabditidae; Peloderinae; Caenorhabditis.
     NCBI TaxID=6239;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
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RC
     STRAIN=Bristol N2;
     MEDLINE=99069613; PubMed=9851916;
RX
RA
     None;
     "Genome sequence of the nematode C. elegans: a platform for
RT
     investigating biology. The C. elegans Sequencing Consortium.";
RT
     Science 282:2012-2018(1998).
RL
RN
     [2]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Bristol N2;
     Favello A.:
RA
RT
     "The sequence of C. elegans cosmid ZK1236.";
RL
     Submitted (MAY-1993) to the EMBL/GenBank/DDBJ databases.
RN
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Bristol N2;
RA
     Waterston R.;
     "Direct Submission.";
RT
     Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; L13200; AAL11108.1; -.
DR
     WormPep; ZK1236.8; CE29629.
DR
KW
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     SEQUENCE 11 AA; 1304 MW; DFA3510A25A76322 CRC64;
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          2; Conservative 0; Mismatches 0; Indels
                                                                              0;
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            5 VK 6
Qy
             -11
            4 VK 5
Db
RESULT 61
O9BDC8
                                           11 AA.
ID
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                                   PRT;
AC
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     01-JUN-2001 (TrEMBLrel. 17, Created)
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     D2 dopamine receptor (Fragment).
GN
     DRD2.
     Pongo pygmaeus (Orangutan).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pongo.
OC
OX
     NCBI TaxID=9600;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Jaril, CP81a, Jari2, and CP81b;
     MEDLINE=20445696; PubMed=10993600;
RX
RA
     Deinard A.S., Kidd K.K.;
     "Evolution of a D2 Dopamine receptor intron within the great apes and
RT
     humans.";
RT
RL
     DNA Seq. 8:289-301(1998).
RN
     [2]
RP
     SEQUENCE FROM N.A.
     STRAIN=Jari1, CP81a, Jari2, and CP81b;
RC
RA
     Deinard A.S., Kidd K.K.;
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Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
     EMBL; AF333020; AAK29396.1; -.
DR
     EMBL; AF333021; AAK29397.1; -.
DR
     EMBL; AF333022; AAK29398.1; -.
DR
DR
     EMBL; AF333023; AAK29399.1; -.
DR
     GO; GO:0004872; F:receptor activity; IEA.
KW
     Receptor.
     NON TER
                   1
                          1
FT
     NON TER
                  11
FT
                         11
     SEQUENCE
SO
                11 AA; 1145 MW; 9F46E75FEDD1E87E CRC64;
  Query Match
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                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
  Matches
            2; Conservative
                                                   0; Indels
                               0; Mismatches
                                                                  0; Gaps
                                                                              0;
Qy
            4 AV 5
              \mathbf{I}
Dh
            9 AV 10
RESULT 62
Q95J20
     Q95J20
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
AC
     Q95J20;
     01-DEC-2001 (TrEMBLrel. 19, Created)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Malic enzyme (Fragment).
DΕ
     Eulemur fulvus albocollaris.
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Strepsirhini; Lemuridae; Eulemur.
OC
OX
     NCBI TaxID=122224;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Wyner Y.M., Johnson S.E., DeSalle R.;
RA
     "A genetic assessment of a red-fronted/white-collared lemur hybrid
RT
     zone at Andringitra, Madagascar.";
RT
     Submitted (APR-2000) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AF258139; AAK53119.1; -.
     EMBL; AF258145; AAK53125.1; -.
DR
DR
     EMBL; AF258147; AAK53127.1; -.
FT
     NON TER
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                          1
     NON TER
                  11
FT
                         11
     SEQUENCE
                11 AA; 1204 MW; C7CD492E66D9D2C9 CRC64;
SO
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  Query Match
  Best Local Similarity
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  Matches
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             2; Conservative
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AG 2
Qу
Db
            9 AG 10
RESULT 63
Q9XSP7
     Q9XSP7 ·
                PRELIMINARY;
                                   PRT;
                                           11 AA.
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RL

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AC
     Q9XSP7;
     01-NOV-1999 (TrEMBLrel. 12, Created)
DT
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Platelet-derived growth factor A chain (Fragment).
DΕ
GN
     PDGFA.
     Pygathrix nemaeus (Dove langur).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
OC
OC
     Pygathrix.
     NCBI TaxID=54133;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=20065871; PubMed=10598812;
RX
RA
     Bonthron D.T., Smith S.L., Campbell R.;
RT
     "Complex patterns of intragenic polymorphism at the PDGFA locus.";
     Hum. Genet. 105:452-459(1999).
RL
     EMBL; AJ243282; CAB45924.1; -.
DR
     NON TER
FT
                   1
                           1
FT
     NON TER
                  11
                          11
     SEQUENCE
                11 AA; 1345 MW; 7FB881F101E1E044 CRC64;
SQ
                           18.2%; Score 2; DB 6; Length 11;
  Query Match
  Best Local Similarity
                           100.0%; Pred. No. 1.5e+05;
             2; Conservative 0; Mismatches
                                                   0; Indels
                                                                    0; Gaps
  Matches
            5 VK 6
Qу
              10 VK 11
Db
RESULT 64
Q9TTQ0
ID
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
     O9TTO0
AC
     09TT00;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update) 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
DT
DE
     Alanine glyoxylate aminotransferase (EC 2.6.1.44) (Fragment).
GN
     AGT.
OS
     Gorilla gorilla (gorilla).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Gorilla.
OC
OX
     NCBI TaxID=9593;
RN
     [1]
RP
     SEOUENCE FROM N.A.
     MEDLINE=20188798; PubMed=10723739;
RX
     Holbrook J.D., Birdsey G.M., Yang Z., Bruford M.W., Danpure C.J.;
RA
     "Molecular adaptation of alanine Glyoxylate aminotransferase targeting
RT
     in primates.";
RT
     Mol. Biol. Evol. 17:387-400(2000).
RL
     EMBL; AJ237887; CAB56788.1; -.
DR
     GO; GO:0008453; F:alanine-glyoxylate transaminase activity; IEA.
DR
     GO; GO:0016740; F:transferase activity; IEA.
DR
KW
     Aminotransferase; Transferase.
     NON TER
                  11
FT
                          11
                11 AA; 1193 MW; E9F82B8BC7272331 CRC64;
SQ
     SEQUENCE
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Query Match
                          18.2%; Score 2; DB 6; Length 11;
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
             2; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
  Matches
                                                                             0;
            6 KL 7
Qy
             5 KL 6
Db
RESULT 65
Q9XSP2
                 PRELIMINARY:
                                           11 AA.
ID
     Q9XSP2
                                   PRT:
AC
     O9XSP2;
     01-NOV-1999 (TrEMBLrel. 12, Created)
DT
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     Platelet-derived growth factor A chain (Fragment).
GN
     Hylobates syndactylus (Siamang) (Symphalangus syndactylus).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hylobatidae; Hylobates.
     NCBI TaxID=9590;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=20065871; PubMed=10598812;
RX
     Bonthron D.T., Smith S.L., Campbell R.;
RA
     "Complex patterns of intragenic polymorphism at the PDGFA locus.";
RT
     Hum. Genet. 105:452-459(1999).
RL
     EMBL; AJ243280; CAB45927.1; -.
DR
     NON TER
FT
                  1
                          1
                         11
     NON TER
                  11
FT
                11 AA; 1345 MW; 7FB881F101E1E044 CRC64;
SO
     SEQUENCE
                          18.2%; Score 2; DB 6; Length 11;
  Query Match
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             2; Conservative
                                0; Mismatches
                                                                              0;
  Matches
                                                   0; Indels
                                                                 0; Gaps
            5 VK 6
ÒУ
              11
           10 VK 11
Db
RESULT 66
Q9BDQ9
ID
     Q9BDQ9
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
AC
     Q9BDQ9;
     01-JUN-2001 (TrEMBLrel. 17, Created)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     D2 dopamine receptor (Fragment).
     DRD2.
GN
     Gorilla gorilla (gorilla).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Gorilla.
OC
     NCBI TaxID=9593;
OX
RN
     [1]
```

```
MEDLINE=20445696; PubMed=10993600;
RX
     Deinard A.S., Kidd K.K.;
RA
     "Evolution of a D2 Dopamine receptor intron within the great apes and
RT
     humans.";
RT
     DNA Seq. 8:289-301(1998).
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
RA
     Deinard A.S., Kidd K.K.;
     Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF333010; AAK29386.1; -.
DR
DR
     GO; GO:0004872; F:receptor activity; IEA.
ΚW
     Receptor.
     NON TER
                          1
FT
                   1
     NON TER
FT
                  11
                         11
     SEQUENCE
SQ
                11 AA; 1145 MW;
                                  9F46E75FEDD1E87E CRC64;
  Query Match
                          18.2%; Score 2; DB 6; Length 11;
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
                                                                              0;
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            4 AV 5
Qy .
              9 AV 10
Db
RESULT 67
Q95NB6
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
     Q95NB6
     Q95NB6;
AC
     01-DEC-2001 (TrEMBLrel. 19, Created)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DΕ
     Malic enzyme (Fragment).
OS
     Eulemur fulvus rufus.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Strepsirhini; Lemuridae; Eulemur.
OC
OX
     NCBI TaxID=47179;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Wyner Y.M., Johnson S.E., DeSalle R.;
RA
     "A genetic assessment of a red-fronted/white-collared lemur hybrid
RT
     zone at Andringitra, Madagascar.";
RT
     Submitted (APR-2000) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AF258148; AAK53128.1; -.
FT
     NON_TER
                   1
                          1
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1204 MW; C7CD492E66D9D2C9 CRC64;
SO
  Query Match
                          18.2%; Score 2; DB 6; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+05;
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             2; Conservative
            1 AG 2
Qу
              -11
Db
            9 AG 10
```

RP

SEQUENCE FROM N.A.

```
RESULT 68
Q9XSP5
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
     Q9XSP5
AC
     Q9XSP5;
     01-NOV-1999 (TrEMBLrel. 12, Created)
DT
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
     Platelet-derived growth factor A chain (Fragment).
DE
GΝ
     PDGFA.
OS
     Pan troglodytes (Chimpanzee).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
OC
     NCBI TaxID=9598;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=20065871; PubMed=10598812;
RA
     Bonthron D.T., Smith S.L., Campbell R.;
     "Complex patterns of intragenic polymorphism at the PDGFA locus.";
RT
     Hum. Genet. 105:452-459(1999).
RL
     EMBL; AJ243277; CAB45926.1; -.
DR
FT
     NON TER
                  1
                          1
     NON TER
                  11
                         11
FT
                11 AA; 1331 MW; 7FB881F101E1F2D4 CRC64;
SQ
     SEQUENCE
                          18.2%; Score 2; DB 6; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
             2; Conservative 0; Mismatches 0; Indels
                                                                              0;
                                                                  0; Gaps
  Matches
            5 VK 6
Qу
              11
           10 VK 11
Db
RESULT 69
Q95J19
ID
     Q95J19
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
AC
     095J19:
     01-DEC-2001 (TrEMBLrel. 19, Created)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Malic enzyme (Fragment).
DE
     Eulemur fulvus (brown lemur).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Strepsirhini; Lemuridae; Eulemur.
OC
OX
     NCBI TaxID=13515;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Wyner Y.M., Johnson S.E., DeSalle R.;
     "A genetic assessment of a red-fronted/white-collared lemur hybrid
RT
     zone at Andringitra, Madagascar.";
RT
     Submitted (APR-2000) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AF258163; AAK53143.1; -.
     EMBL; AF258170; AAK53150.1; -.
DR
DR
     EMBL; AF258171; AAK53151.1; -.
     EMBL; AF258173; AAK53153.1; -.
DR
DR
     EMBL; AF258175; AAK53155.1; -.
```

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EMBL; AF258178; AAK53158.1; -.
DR
     EMBL; AF258179; AAK53159.1; -.
DR
     EMBL; AF258181; AAK53161.1; -.
DR
DR
     EMBL; AF258182; AAK53162.1; -.
     NON TER
FT
                  1
                          1
     NON TER
                  11
                         11
FT
     SEOUENCE
SO
                11 AA; 1204 MW; C7CD492E66D9D2C9 CRC64;
                          18.2%; Score 2; DB 6; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
             2; Conservative 0; Mismatches 0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            1 AG 2
Qу
             -11
            9 AG 10
Db
RESULT 70
O9TOS0
                                           11 AA.
ID
     Q9TQS0
                 PRELIMINARY;
                                   PRT;
AC
     Q9TQS0;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DΤ
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
     C-KIT (Fragment).
DE
GN
     KIT.
OS
     Bos taurus (Bovine).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC
     Bovidae; Bovinae; Bos.
OC
     NCBI TaxID=9913;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Olsen H.G., Vage D.I., Lien S., Klungland H.;
RA
     "A polymorphism in the bovine c-kit gene.";
RT
     Submitted (JUN-1999) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AJ243424; CAB60775.1; -.
DR
DR
     EMBL; AJ243060; CAB60774.1; -.
     NON TER
FT
                  1
                          1
     NON TER
                         11
FT
                  11
     SEQUENCE
                11 AA; 1126 MW; DD785FF8A2D2D772 CRC64;
SO
  Query Match
                          18.2%; Score 2; DB 6; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+05;
             2; Conservative 0; Mismatches 0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
           10 KA 11
Qу
              2 KA 3
Db
RESULT 71
Q9BDD0
     Q9BDD0
                                   PRT;
                                           11 AA.
                 PRELIMINARY;
ΙD
     Q9BDD0;
AC
     01-JUN-2001 (TrEMBLrel. 17, Created)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
```

```
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
     D2 dopamine receptor (Fragment).
DE
     DRD2.
GN
     Pan troglodytes (Chimpanzee).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
OC
     NCBI TaxID=9598;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=Various strains;
RC
RX
     MEDLINE=20445696; PubMed=10993600;
RA
     Deinard A.S., Kidd K.K.;
RT
     "Evolution of a D2 Dopamine receptor intron within the great apes and
RT
     humans.";
     DNA Seq. 8:289-301(1998).
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=Various strains;
RA
     Deinard A.S., Kidd K.K.;
     Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF333011; AAK29387.1; -.
DR
     EMBL; AF333012; AAK29388.1; -.
DR
     EMBL; AF333013; AAK29389.1; -.
DR
     EMBL; AF333015; AAK29391.1; -.
DR
     EMBL; AF333016; AAK29392.1; -.
DR
     EMBL; AF333017; AAK29393.1; -.
DR
     EMBL; AF333018; AAK29394.1; -.
DR
     EMBL; AF333019; AAK29395.1; -.
DR
     GO; GO:0004872; F:receptor activity; IEA.
DR
KW
     Receptor.
     NON TER
                          1
FT
                   1
     NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA; 1145 MW; 9F46E75FEDD1E87E CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 6; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.5e+05;
                                                                  0; Gaps
            2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                              0;
            4 AV 5
Qу
             9 AV 10
Db
RESULT 72
Q9XSP8
ID
     Q9XSP8
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
AC
     Q9XSP8;
     01-NOV-1999 (TrEMBLrel. 12, Created)
DT
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Platelet-derived growth factor A chain (Fragment).
DΕ
     PDGFA.
GN
OS
     Presbytis johnii.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
OC
     Presbytis.
OX
     NCBI TaxID=98375;
```

```
[1]
RN
     SEQUENCE FROM N.A.
RP
    MEDLINE=20065871; PubMed=10598812;
ŔХ
     Bonthron D.T., Smith S.L., Campbell R.;
RA
     "Complex patterns of intragenic polymorphism at the PDGFA locus.";
RT
    Hum. Genet. 105:452-459(1999).
RL
    EMBL; AJ243281; CAB46013.1; -.
DR
FT
    NON TER
                  1
                          1
FT
    NON TER
                  11
                         11
                11 AA; 1345 MW; 7FB881F101E1E044 CRC64;
     SEQUENCE
SO
  Query Match
                          18.2%; Score 2; DB 6; Length 11;
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
                                                                              0;
 Matches
            2; Conservative
                                0; Mismatches
                                                   0;
                                                      Indels
                                                                  0;
                                                                      Gaps
Qу
            5 VK 6
              10 VK 11
Db
RESULT 73
Q9XSP6
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
     Q9XSP6
AC
     O9XSP6;
     01-NOV-1999 (TrEMBLrel. 12, Created)
DT
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Platelet-derived growth factor A chain (Fragment).
DΕ
GN
     PDGFA.
OS
     Pongo pygmaeus (Orangutan).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pongo.
OC
OX
     NCBI TaxID=9600;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=20065871; PubMed=10598812;
RX
     Bonthron D.T., Smith S.L., Campbell R.;
RA
     "Complex patterns of intragenic polymorphism at the PDGFA locus.";
RT
     Hum. Genet. 105:452-459(1999).
RL
     EMBL; AJ243279; CAB45925.1; -.
DR
     NON TER
                  1
                          1
FT
     NON TER
                         11
FT
                  11
                11 AA; 1345 MW; 7FB881F101E1E044 CRC64;
     SEQUENCE
SQ
  Query Match
                          18.2%; Score 2; DB 6; Length 11;
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
  Matches
             2; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            5 VK 6
Qу
              11
           10 VK 11
Db
RESULT 74
Q9BDC9
                                           11 AA.
                                   PRT;
     O9BDC9
                 PRELIMINARY;
ID
AC
     O9BDC9;
```

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01-JUN-2001 (TrEMBLrel. 17, Created)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     D2 dopamine receptor (Fragment).
DE
     DRD2.
GN
     Pan paniscus (Pygmy chimpanzee) (Bonobo).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
OC
     NCBI TaxID=9597;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Jimmy;
     MEDLINE=20445696; PubMed=10993600;
RX
RA
     Deinard A.S., Kidd K.K.;
RT
     "Evolution of a D2 Dopamine receptor intron within the great apes and
RT
     humans.";
     DNA Seq. 8:289-301(1998).
RL
     [2]
RN
     SEQUENCE FROM N.A.
RP
     STRAIN=Jimmy;
RC
     Deinard A.S., Kidd K.K.;
RA
     Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
RL
RN
RP
     SEQUENCE FROM N.A.
RA
     Deinard A.S., Kidd K.K.;
     Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF333014; AAK29390.1; -.
DR
     EMBL; AF358821; AAK29457.1; -.
DR
     GO; GO:0004872; F:receptor activity; IEA.
DR
KW
     Receptor.
     NON TER
                          1
FT
                   1
     NONTER
                  11
                         11
FT
                11 AA; 1145 MW; 9F46E75FEDD1E87E CRC64;
SQ
     SEOUENCE
                          18.2%; Score 2; DB 6; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+05;
  Best Local Similarity
                                                 0; Indels
                                                                              0;
                                0; Mismatches
                                                                  0; Gaps
  Matches
             2; Conservative
            4 AV 5
Qу
              9 AV 10
Db
RESULT 75
Q9XSQ4
ID
     Q9XSQ4
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     Q9XSQ4;
     01-NOV-1999 (TrEMBLrel. 12, Created)
DT
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Platelet-derived growth factor A chain (Fragment).
DE
GN
     PDGFA.
OS
     Gorilla gorilla (gorilla).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Gorilla.
OC
OX
     NCBI TaxID=9593;
RN
     [1]
```

```
SEQUENCE FROM N.A.
RP
     MEDLINE=20065871; PubMed=10598812;
RX
      Bonthron D.T., Smith S.L., Campbell R.;
RA
      "Complex patterns of intragenic polymorphism at the PDGFA locus.";
RT
      Hum. Genet. 105:452-459(1999).
RL
      EMBL; AJ243278; CAB45916.1; -.
DR
      NON TER
                 1
                              1
FT
                     11
      NON TER
                              11
\Gamma T
      SEQUENCE
                   11 AA; 1331 MW; 7FB881F101E1F2D4 CRC64;
SQ
  Query Match 18.2%; Score 2; DB 6; Length 11; Best Local Similarity 100.0%; Pred. No. 1.5e+05; Matches 2; Conservative 0; Mismatches 0; Indels
                                                                              0; Gaps
                                                                                             0;
              5 VK 6
Qу
                \Box
Db
             10 VK 11
```

Search completed: April 8, 2004, 15:46:04 Job time: 28.7692 secs

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OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:07; Search time 5.15385 Seconds

(without alignments)

111.135 Million cell updates/sec

Title: US-09-787-443A-4

Perfect score: 11

Sequence: 1 AGSAVKLKKKA 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 141681 seqs, 52070155 residues

Word size :

Total number of hits satisfying chosen parameters:

70

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: SwissProt 42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

					0011111111		
Result		% Query					
No.	Score		Length	DB	ID	Description	
1	3	27.3	11	1	OAIF_SARBU	P83518 sarcophaga	a
2	2	18.2	11	1	BRK MEGFL	P12797 megascolia	a
3	2	18.2	11	1	$CA4\overline{1}$ LITCI	P82091 litoria c	it
4	2	18.2	11	1	CA42 LITCI	P82092 litoria ci	it
5	2	18.2	11	1	COXA CANFA	P99501 canis fami	il
6	2	18.2	11	1	CSI5 BACSU	P81095 bacillus s	зu
7	2	18.2	11	1	CXL1 CONMR	P58807 conus marr	no
8	2	18.2	11	1	LPW_THETH	P05624 thermus th	nе
9	2	18.2	11	1	MHBI KLEPN	P80580 klebsiella	æ
10	2	18.2	11	1	MORN_HUMAN	P01163 homo sapie	∋n
11	2	18.2	11	1	NUHM CANFA	P49820 canis fam	il
12	2	18.2	11	1	PQQC_PSEFL	P55173 pseudomona	as
13	2	18.2	11	1	Q2OA_COMTE	P80464 comamonas	t
14	2	18.2	11	1	RS30_ONCMY	P83328 oncorhynch	าน
15	1	9.1	11	1	ANGT_CRIGE	P09037 crinia geo	эr
16	1	9.1	11	1	ASL1_BACSE	P83146 bacteroide	∋s
17	1	9.1	11	1	ASL2_BACSE	P83147 bacteroide	es

	_						
18	1	9.1	11	1	BPP3_BOTIN		bothrops in
19	1	9.1	11	1	BPP4 BOTIN	P30424	bothrops in
20	1	9.1	11	1	BPPB AGKHA	P01021	agkistrodon
21	1	9.1	11	1	BPP AGKHP		agkistrodon
22	$\overline{1}$	9.1	$\frac{1}{1}$	1	CA21 LITCI		litoria cit
23	1	9.1	11	1	CA22 LITCI		litoria cit
24	1	9.1	11	1			
					CA31_LITCI		litoria cit
25	1	9.1	11	1	CA32_LITCI		litoria cit
26	1	9.1	11	1	CEP1_ACHFU		achatina fu
27	1	9.1	11	1	CORZ_PERAM		periplaneta
28	1	9.1	11	1	CX5B_CONAL	P58849	conus aulic
29	1	9.1	11	1	EFG CLOPA	P81350	clostridium
30	1	9.1	11	1	ES1 RAT	P56571	rattus norv
31	1	9.1	11	1	FAR6 PENMO	P83321	penaeus mon
32	$\overline{1}$	9.1	11	1	FAR9 CALVO		calliphora
33	1	9.1	11	1	HS70 PINPS		pinus pinas
34	1	9.1	11	1	LADD ONCMY		oncorhynchu
35	1	9.1	11	1	LSK1_LEUMA		leucophaea
36	1	9.1	11	1	LSKP_PERAM		periplaneta
37	1	9.1	11	1	$\mathtt{MLG_THETS}$		theromyzon
38	1	9.1	11	1	NXSN_PSETE		pseudonaja
39	1	9.1	11	1	PKC1_CARMO		carausius m
40	1	9.1	11	1	PVK1_PERAM	P41837	periplaneta
41	1	9.1	11	1	RANC RANPI	P08951	rana pipien
42	1	9.1	11	1	RE41 LITRU		litoria rub
43	1	9.1	11	1	RR2 CONAM	P42341	conopholis
44	1	9.1	11	1	RRPL CHAV		chandipura
45	1	9.1	11	1	T2P1 PROVU		proteus vul
46	1	9.1	11	1	TIN4 HOPTI		hoplobatrac
47		9.1	. 11	1	_		calliphora
	1				TKC2_CALVO		
48	1	9.1	11	1	TKN1_PSEGU		pseudophryn
49	1	9.1	11	1	TKN1_UPEIN		uperoleia i
50	1	9.1	11	1	TKN1_UPERU		uperoleia r
51	1	9.1	11	1	TKN2_PSEGU		pseudophryn
52	1	9.1	11	1	TKN2_UPERU	P08616	uperoleia r
53	1	9.1	11	1	TKN3 PSEGU	P42988	pseudophryn
54	1	9.1	11	1	TKN4 PSEGU	P42989	pseudophryn
55	1	9.1	11	1	TKN5 PSEGU		pseudophryn
56	1	9.1	11	1	TKNA CHICK	P19850	gallus gall
57	$\overline{1}$	9.1	11	1	TKNA GADMO		gadus morhu
58	1	9.1	11	1	TKNA HORSE		equus cabal
59	1	9.1	11	1	TKNA ONCMY		oncorhynchu
60	1	9.1	11	1	TKNA_RANCA		rana catesb
61	1	9.1	11	1	TKNA_RANRI		rana ridibu
62	1	9.1	11	1	TKNA_SCYCA		scyliorhinu
63	1	9.1	11	1	TKND_RANCA		rana catesb
64	1	9.1	11	1	TKN_ELEMO		eledone mos
65	1	9.1	11	1	TKN_PHYFU	P08615	physalaemus
66	1	9.1	11	1	UF05_MOUSE	P38643	mus musculu
67	1	9.1	11	1	ULAG HUMAN	P31933	homo sapien
68	1	9.1	11	1	UXB2 YEAST		saccharomyc
69	0	0.0	11	1	CX5A CONAL		conus aulic
70	0	0.0	11	1	TIN1 HOPTI		hoplobatrac
, 0	J	0.0	11		7 TH T THOL 1 T	102031	opionaciac

```
OAIF SARBU
     OAIF SARBU
                    STANDARD;
                                   PRT;
ID
                                            11 AA.
     P83518;
AC
     10-OCT-2003 (Rel. 42, Created)
DT
     10-OCT-2003 (Rel. 42, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ovary-derived ACE interactive factor (Neb-ODAIF) [Contains: Neb-
DE
     ODAIF(1-9); Neb-ODAIF(1-7)].
DE
OS
     Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
OC
     Sarcophagidae; Sarcophaga.
OX
     NCBI TaxID=7385;
RN
     [1]
     SEQUENCE, SYNTHESIS, CHARACTERIZATION, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Ovary;
     MEDLINE=22272747; PubMed=12383874;
RX
     Vandingenen A., Hens K., Baggerman G., Macours N., Schoofs L.,
RA
RA
     De Loof A., Huybrechts R.;
RT
     "Isolation and characterization of an angiotensin converting enzyme
     substrate from vitellogenic ovaries of Neobellieria bullata.";
RT
RL
     Peptides 23:1853-1863(2002).
     -!- FUNCTION: Substrate for angiotensin converting enzyme (ACE) in
CC
CC
         vitro.
     -!- PTM: ACE hydrolyzes Neb-ODAIF by sequentially cleaving off two C-
CC
CC
         terminal dipeptides.
     -!- MASS SPECTROMETRY: MW=1312.7; METHOD=MALDI; RANGE=1-11.
CC
CC
     -!- SIMILARITY: To the N-terminal part of insect vitellogenins.
     PEPTIDE
FT
                         11
                                  NEB-ODAIF.
                   1
                   1
                          9
FT
     PEPTIDE
                                  NEB-ODAIF(1-9).
                          7
FT
                   1
                                  NEB-ODAIF(1-7).
     PEPTIDE
SO
     SEOUENCE
                11 AA; 1314 MW;
                                  4E114BB566C5A763 CRC64;
                          27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.8e+03;
 Matches
             3; Conservative 0; Mismatches
                                                    0: Indels
                                                                  0; Gaps
                                                                              0;
            6 KLK 8
Qу
              \perp
Db
            2 KLK 4
RESULT 2
BRK MEGFL
ID
     BRK MEGFL
                    STANDARD;
                                   PRT:
                                            11 AA.
AC
     P12797;
DT
     01-OCT-1989 (Rel. 12, Created)
     01-OCT-1989 (Rel. 12, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Megascoliakinin ([Thr6]bradykinin-Lys-Ala) [Contains: Bradykinin-like
DΕ
DE
     peptide ([Thr6]bradykinin)].
    Megascolia flavifrons (Garden dagger wasp) (Solitary wasp).
os
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
     Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata; Vespoidea;
OC
     Scoliidae; Megascolia.
```

RESULT 1

```
OX
     NCBI TaxID=7437;
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Venom;
RC
RX
     MEDLINE=87293024; PubMed=3617088;
RA
     Yasuhara T., Mantel P., Nakajima T., Piek T.;
     "Two kinins isolated from an extract of the venom reservoirs of the
RT
RT
     solitary wasp Megascolia flavifrons.";
     Toxicon 25:527-535(1987).
RL
RN
     [2]
     SEQUENCE.
RP
RC
     TISSUE=Venom;
     Nakajima T., Piek T., Yashuara T., Mantel P.;
RA
     "Two kinins isolated from the venom of Megascolia flavifrons.";
RT
RL
     Toxicon 26:34-34(1988).
     -!- FUNCTION: Both proteins have bradykinin-like, although lower
CC
CC
         activities (e.g. smooth muscle contraction).
CC
     -!- SUBCELLULAR LOCATION: Secreted; wasp venom reservoirs.
CC
     -!- SIMILARITY: Belongs to the bradykinin family.
DR
     PIR; B26744; B26744.
     GO; GO:0005615; C:extracellular space; IDA.
DR
     GO; GO:0045776; P:negative regulation of blood pressure; ISS.
DR
     GO; GO:0045987; P:positive regulation of smooth muscle contra. . .; TAS.
DR
KW
     Bradykinin; Vasodilator.
                                  MEGASCOLIAKININ.
FT
     PEPTIDE
                   1
                         11
FT
     PEPTIDE
                   1
                          9
                                  BRADYKININ-LIKE PEPTIDE.
                        1273 MW; 33867393D771A9C8 CRC64;
     SEQUENCE
                11 AA;
SQ
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+04;
                               0; Mismatches
  Matches
             2; Conservative
                                                    0;
                                                                  0; Gaps
                                                                               0;
                                                       Indels
           10 KA 11
QУ
              11
           10 KA 11
Db
RESULT 3
CA41 LITCI
     CA41 LITCI
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
     P82091;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Caerulein 4.1/4.1Y4.
OS
     Litoria citropa (Australian blue mountains tree frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
     NCBI TaxID=94770;
OX
RN
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Skin secretion;
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
```

```
using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 4.1Y4 differs from isoform 4.1 in not being
CC
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1388; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
KW
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
     Pyrrolidone carboxylic acid.
KW
FT
     MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
FT
                   4
                          4
                                  SULFATION.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1328 MW; 10DAB7C4F5B861BB CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+04;
                              0; Mismatches
  Matches
             2; Conservative
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            2 GS 3
Qу
              Db
            6 GS 7
RESULT 4
CA42 LITCI
     CA42 LITCI
                    STANDARD;
                                   PRT;
                                           11 AA.
     P82092;
AC
DT
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Caerulein 4.2/4.2Y4.
OS
     Litoria citropa (Australian blue mountains tree frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
     NCBI TaxID=94770;
OX
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
    MEDLINE=20057701; PubMed=10589099;
RX
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RT
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 4.2Y4 differs from isoform 4.2 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1404; METHOD=Electrospray.
CC
    -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
    InterPro; IPR001651; Gastrin.
```

```
PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
KW
     Pyrrolidone carboxylic acid.
     MOD RES
FT
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
                          1
     MOD RES
FT
                   4
                          4
                                  SULFATION.
                  11
FT
     MOD RES
                         11
                                  AMIDATION.
     SEQUENCE
SQ
                11 AA; 1344 MW; 10DAB894F5B861BB CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+04;
             2; Conservative 0; Mismatches 0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            2 GS 3
Qу
              6 GS 7
Dh
RESULT 5
COXA CANFA
ID
     COXA CANFA
                    STANDARD;
                                   PRT;
                                           11 AA.
     P99501;
AC
DТ
     15-JUL-1998 (Rel. 36, Created)
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     30-MAY-2000 (Rel. 39, Last annotation update)
DT
     Cytochrome c oxidase polypeptide Va (EC 1.9.3.1) (Fragment).
DE
GN
     COX5A.
OS
     Canis familiaris (Dog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX
     NCBI TaxID=9615;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Heart;
     MEDLINE=98163340; PubMed=9504812;
RX
RA
     Dunn M.J., Corbett J.M., Wheeler C.H.;
     "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT
     dog heart proteins.";
RT
     Electrophoresis 18:2795-2802(1997).
RL
CC
     -!- FUNCTION: This is the heme A-containing chain of cytochrome c
CC
         oxidase, the terminal oxidase in mitochondrial electron transport.
     -!- CATALYTIC ACTIVITY: 4 ferrocytochrome c + O(2) = 4 ferricytochrome
CC
CC
         c + 2 H(2)0.
CC
     -!- SUBCELLULAR LOCATION: Mitochondrial inner membrane.
     -!- SIMILARITY: Belongs to the cytochrome c oxidase Va family.
CC
DR
     HSC-2DPAGE; P99501; DOG.
     InterPro; IPR003204; Cyt c ox5A.
DR
     Pfam; PF02284; COX5A; 1.
DR
KW
     Oxidoreductase; Heme; Mitochondrion; Inner membrane.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1274 MW; 910B35C5B1AB11F5 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+04;
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
```

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RESULT 6
CSI5 BACSU
     CSI5 BACSU
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
     P81095;
AC
     15-JUL-1998 (Rel. 36, Created)
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Cold shock protein CSI5 (11 kDa cold shock protein) (Fragment).
DE
OS
     Bacillus subtilis.
     Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
OC
OX
     NCBI TaxID=1423;
RN
RP
     SEQUENCE.
RC
     STRAIN=168 / JH642;
RA
     Graumann P.L., Schmid R., Marahiel M.A.;
     Submitted (OCT-1997) to Swiss-Prot.
RL
RN
     [2]
     CHARACTERIZATION.
RP
     STRAIN=168 / JH642;
RC
     MEDLINE=96345629; PubMed=8755892;
RX
RA
     Graumann P., Schroeder K., Schmid R., Marahiel M.A.;
     "Cold shock stress-induced proteins in Bacillus subtilis.";
RT
     J. Bacteriol. 178:4611-4619(1996).
RL
CC
     -!- SUBCELLULAR LOCATION: Cytoplasmic.
     -!- INDUCTION: In response to low temperature.
CC
CC
     -!- CAUTION: Could not be found in the genome of B. subtilis 168.
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1360 MW; 15F6ECEE6322C330 CRC64;
SO
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+04;
                                0; Mismatches
  Matches
             2; Conservative
                                                    0; Indels
                                                                               0;
                                                                  0; Gaps
            5 VK 6
Qу
              11
            6 VK 7
Db
RESULT 7
CXL1 CONMR
     CXL1 CONMR
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P58807;
DT
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DΕ
     Lambda-conotoxin CMrVIA.
OS
     Conus marmoreus (Marble cone).
OC
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
     Neogastropoda; Conoidea; Conidae; Conus.
OX
     NCBI TaxID=42752;
RN
RP
     SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RC
     TISSUE=Venom;
```

```
MEDLINE=20564325; PubMed=10988292;
RX
     Balaji R.A., Ohtake A., Sato K., Gopalakrishnakone P., Kini R.M.,
RA
     Seow K.T., Bay B.-H.;
RA
     "Lambda-conotoxins, a new family of conotoxins with unique disulfide
RT
     pattern and protein folding. Isolation and characterization from the
RT
     venom of Conus marmoreus.";
RT
     J. Biol. Chem. 275:39516-39522(2000).
RL
    -!- FUNCTION: Inhibits the neuronal noradrenaline transporter.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
    -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1237.93; MW ERR=0.21; METHOD=Electrospray.
CC
CC
     -!- SIMILARITY: Belongs to the chi/lambda-conotoxin family.
    Neurotoxin; Toxin; Hydroxylation.
KW
FT
    DISULFID
                   2
                         11
FT
    DISULFID
                   3
                          8
                                  HYDROXYLATION.
FT
    MOD RES
                  10
                         10
SO
     SEQUENCE
               11 AA; 1226 MW; 277AAC60B7232B58 CRC64;
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.8e+04;
 Matches
             2; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            6 KL 7
Qу
             11
Db
            6 KL 7
RESULT 8
LPW THETH
   LPW THETH
ID
                    STANDARD;
                                   PRT;
                                           11 AA.
    P05624;
AC
     01-NOV-1988 (Rel. 09, Created)
DT
DT
     01-NOV-1988 (Rel. 09, Last sequence update)
     30-MAY-2000 (Rel. 39, Last annotation update)
DT
DE
    Trp operon leader peptide.
GN
    TRPL.
OS
     Thermus thermophilus.
    Bacteria; Deinococcus-Thermus; Deinococci; Thermales; Thermaceae;
OC
OC
    Thermus.
    NCBI TaxID=274;
OX
RN
    [1]
    SEQUENCE FROM N.A.
RP
RC
    STRAIN=HB8 / ATCC 27634;
    MEDLINE=89000781; PubMed=2844259;
RX
RA
     Sato S., Nakada Y., Kanaya S., Tanaka T.;
RT
     "Molecular cloning and nucleotide sequence of Thermus thermophilus
RT
    HB8 trpE and trpG.";
RL
    Biochim. Biophys. Acta 950:303-312(1988).
CC
     -!- FUNCTION: THIS PROTEIN IS INVOLVED IN CONTROL OF THE BIOSYNTHESIS
CC
        OF TRYPTOPHAN.
CC
     This SWISS-PROT entry is copyright. It is produced through a collaboration
CC
CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
    the European Bioinformatics Institute. There are no restrictions on its
CC
    use by non-profit institutions as long as its content is in no way
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or send an email to license@isb-sib.ch).
CC
CC
DR
     EMBL; X07744; CAA30565.1; -.
KW
     Tryptophan biosynthesis; Leader peptide.
SQ
     SEQUENCE 11 AA; 1228 MW;
                                  364B295A772DC5A7 CRC64;
  Query Match
                           18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+04;
                               0; Mismatches 0; Indels
             2: Conservative
                                                                               0:
                                                                   0; Gaps
            3 SA 4
Qу
              11
            5 SA 6
Db
RESULT 9
MHBI KLEPN
ID
     MHBI KLEPN
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P80580;
     01-OCT-1996 (Rel. 34, Created)
DT
     01-OCT-1996 (Rel. 34, Last sequence update) 01-NOV-1997 (Rel. 35, Last annotation update)
DT
DT
     Maleylpyruvate isomerase (EC 5.2.1.4) (Fragment).
DE
GN
     MHBI.
OS
     Klebsiella pneumoniae.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
     Enterobacteriaceae; Klebsiella.
OX
     NCBI TaxID=573;
RN
     [1]
RP
     SEQUENCE.
RX
     MEDLINE=96349117; PubMed=8760924;
RA
     Robson N.D., Parrott S., Cooper R.A.;
RT
     "In vitro formation of a catabolic plasmid carrying Klebsiella
RT
     pneumoniae DNA that allows growth of Escherichia coli K-12 on 3-
RT
     hydroxybenzoate.";
     Microbiology 142:2115-2120(1996).
RL
CC
     -!- CATALYTIC ACTIVITY: 3-maleylpyruvate = 3-fumarylpyruvate.
KW
     Isomerase.
FT
     NON TER
                  11
                         11
     SEQUENCE 11 AA; 1387 MW; 1EE0E2DD49C9D5AB CRC64;
SO
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+04;
                                0; Mismatches 0; Indels
  Matches
            2; Conservative
                                                                   0; Gaps
                                                                               0;
            6 KL 7
Qу
              -1.1
Dh
            2 KL 3
RESULT 10
MORN HUMAN
     MORN HUMAN
                    STANDARD;
                                    PRT;
ΙD
                                            11 AA.
AC
     P01163;
DT ·
     21-JUL-1986 (Rel. 01, Created)
DT
     21-JUL-1986 (Rel. 01, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
```

```
Morphogenetic neuropeptide (Head activator) (HA).
DE
     Homo sapiens (Human),
OS
os
     Rattus norvegicus (Rat),
     Bos taurus (Bovine),
OS
OS
     Anthopleura elegantissima (Sea anemone), and
     Hydra attenuata (Hydra) (Hydra vulgaris).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606, 10116, 9913, 6110, 6087;
OX
RN
     [1]
     SEQUENCE.
RΡ
     SPECIES=Human, Rat, and Bovine;
RC
     MEDLINE=82035850; PubMed=7290191;
RX
     Bodenmuller H., Schaller H.C.;
RA
     "Conserved amino acid sequence of a neuropeptide, the head activator,
RT
RT
     from coelenterates to humans.";
RL
     Nature 293:579-580(1981).
RN
     [2]
RP
     SEQUENCE.
     SPECIES=A.elegantissima, and H.attenuata;
RC
     Schaller H.C., Bodenmuller H.;
RA
RT
     "Isolation and amino acid sequence of a morphogenetic peptide from
     hydra.";
RT
     Proc. Natl. Acad. Sci. U.S.A. 78:7000-7004(1981).
RL
RN
     [3]
RP
     SYNTHESIS.
    MEDLINE=82050803; PubMed=7297679;
RX
     Birr C., Zachmann B., Bodenmuller H., Schaller H.C.;
RA
     "Synthesis of a new neuropeptide, the head activator from hydra.";
RT
     FEBS Lett. 131:317-321(1981).
RL
RN
     [4]
RP
     FUNCTION.
     MEDLINE=90059923; PubMed=2583101;
RX
     Schaller H.C., Druffel-Augustin S., Dubel S.;
RA
RT
     "Head activator acts as an autocrine growth factor for NH15-CA2 cells
RT
     in the G2/mitosis transition.";
     EMBO J. 8:3311-3318(1989).
RL
CC
     -!- FUNCTION: HA acts as an autocrine growth factor for neural cells
CC
         in the G2/mitosis transition.
CC
     -!- CAUTION: This peptide was first isolated from nerve cells of hydra
CC
         and was called head activator by the authors, because it induced
CC
         head-specific growth and differentiation in this animal. It has
CC
         been found in mammalian intestine and hypothalamus.
     PIR; A01427; YHRT.
DR
     PIR; A93900; YHXAE.
DR
DR
     PIR; B01427; YHHU.
     PIR; B93900; YHJFHY.
DR
DR
     PIR; C01427; YHBO.
DR
     GK; P01163; -.
KW
     Growth factor; Cell cycle; Mitosis; Pyrrolidone carboxylic acid.
FT
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          7
SQ
     SEQUENCE
                11 AA; 1142 MW; 37927417C325B878 CRC64;
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.8e+04;
  Best Local Similarity
                                0; Mismatches
                                                                              0;
             2; Conservative
                                                    0; Indels
                                                                  0; Gaps
  Matches
```

```
2 GS 3
Qу
             5 GS 6
Db
RESULT 11
NUHM CANFA
    NUHM CANFA
                    STANDARD;
                                   PRT;
                                           11 AA.
ID
     P49820:
AC
     01-OCT-1996 (Rel. 34, Created)
DТ
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     NADH-ubiquinone oxidoreductase 24 kDa subunit (EC 1.6.5.3)
DE
     (EC 1.6.99.3) (Fragment).
DE
    NDUFV2.
GN
     Canis familiaris (Dog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX
    NCBI TaxID=9615;
RN
     [1]
     SEQUENCE.
RP
RC
    TISSUE=Heart;
    MEDLINE=98163340; PubMed=9504812;
RX
     Dunn M.J., Corbett J.M., Wheeler C.H.;
RA
     "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT
RT
     dog heart proteins.";
    Electrophoresis 18:2795-2802(1997).
RL
    -!- FUNCTION: TRANSFER OF ELECTRONS FROM NADH TO THE RESPIRATORY
CC
CC
         CHAIN. THE IMMEDIATE ELECTRON ACCEPTOR FOR THE ENZYME IS BELIEVED
         TO BE UBIQUINONE. COMPONENT OF THE FLAVOPROTEIN-SULFUR (FP)
CC
        FRAGMENT OF THE ENZYME.
CC
CC
    -!- CATALYTIC ACTIVITY: NADH + ubiquinone = NAD(+) + ubiquinol.
    -!- CATALYTIC ACTIVITY: NADH + acceptor = NAD(+) + reduced acceptor.
CC
     -!- COFACTOR: Binds 1 2Fe-2S cluster (Potential).
CC
    -!- SUBUNIT: Mammalian complex I is composed of 45 different subunits.
CC
    -!- SUBCELLULAR LOCATION: Matrix and cytoplasmic side of the
CC
        mitochondrial inner membrane.
CC
     -!- SIMILARITY: Belongs to the complex I 24 kDa subunit family.
CC
    HSC-2DPAGE; P49820; DOG.
DR
    InterPro; IPR002023; Cmplx1 24kDa.
DR
    PROSITE; PS01099; COMPLEX1 24K; PARTIAL.
DR
    Oxidoreductase; NAD; Ubiquinone; Mitochondrion; Metal-binding;
KW
    Iron-sulfur; Iron; 2Fe-2S.
KW
    NON TER
FT
                  11
                         11
    SEQUENCE
SO
                11 AA; 1099 MW; 267F5369C9C72DD8 CRC64;
 Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+04;
            2; Conservative 0; Mismatches
 Matches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AG 2
Qу
              11
           2 AG 3
Db
```

RESULT 12 PQQC PSEFL

```
PQQC PSEFL
                   STANDARD;
                                 PRT;
                                        11 AA.
ID
AC
     P55173;
DT
     01-OCT-1996 (Rel. 34, Created)
     01-OCT-1996 (Rel. 34, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Coenzyme PQQ synthesis protein C (Pyrroloquinoline quinone
DE
DΕ
     biosynthesis protein C) (Fragment).
GN
     PQQC.
    Pseudomonas fluorescens.
OS
    Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC
     Pseudomonadaceae; Pseudomonas.
OC
OX
    NCBI TaxID=294;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
    STRAIN=CHA0;
    MEDLINE=96064397; PubMed=8526497;
RX
RA
     Schnider U., Keel C., Defago G., Haas D.;
RT
     "Tn5-directed cloning of pqq genes from Pseudomonas fluorescens CHAO:
    mutational inactivation of the genes results in overproduction of the
RT
    antibiotic pyoluteorin.";
RT
RL
    Appl. Environ. Microbiol. 61:3856-3864(1995).
CC
    -!- PATHWAY: Pyrroloquinoline quinone (PQQ) biosynthesis.
    -!- SIMILARITY: Belongs to the pqqC family.
CC
    ______
CC
CC
    This SWISS-PROT entry is copyright. It is produced through a collaboration
CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC
    the European Bioinformatics Institute. There are no restrictions on its
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    or send an email to license@isb-sib.ch).
CC
DR
    EMBL; X87299; CAA60734.1; -.
DR
    PIR; S58244; S58244.
    HAMAP; MF 00654; -; 1.
DR
KW
    PQQ biosynthesis.
    NON TER
FT
              11
                        11
               11 AA; 1182 MW; 89DF46E4C5B73771 CRC64;
SQ
    SEQUENCE
 Query Match
                         18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.8e+04;
           2; Conservative 0; Mismatches 0; Indels 0; Gaps
           3 SA 4
Qу
             7 SA 8
Db
RESULT 13
Q2OA COMTE
    Q2OA COMTE
                   STANDARD;
                                 PRT;
ΙD
                                        11 AA.
AC
    P80464;
    01-NOV-1995 (Rel. 32, Created)
DT
DT
    01-NOV-1995 (Rel. 32, Last sequence update)
DT
    16-OCT-2001 (Rel. 40, Last annotation update)
DE
    Quinoline 2-oxidoreductase, alpha chain (EC 1.3.99.17) (Fragment).
OS
    Comamonas testosteroni (Pseudomonas testosteroni).
```

```
Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
OC
OC
     Comamonadaceae; Comamonas.
OX
     NCBI TaxID=285;
     [1]
RN
RP
     SEQUENCE.
RC
     STRAIN=63;
     MEDLINE=96035889; PubMed=7556204;
RX
     Schach S., Tshisuaka B., Fetzner S., Lingens F.;
RA
     "Quinoline 2-oxidoreductase and 2-oxo-1,2-dihydroquinoline 5,6-
RT
RT
     dioxygenase from Comamonas testosteroni 63. The first two enzymes in
     quinoline and 3-methylquinoline degradation.";
RT
     Eur. J. Biochem. 232:536-544(1995).
RL
     -!- FUNCTION: Converts (3-methyl-)-quinoline to (3-methyl-)2-oxo-
CC
CC
         1,2-dihydroquinoline.
CC
     -!- CATALYTIC ACTIVITY: Quinoline + acceptor + H(2)O = isoquinolin-
CC
         1(2H)-one + reduced acceptor.
CC
     -!- COFACTOR: FAD, molybdenum and iron-sulfur.
CC
     -!- PATHWAY: Degradation of quinoline and (3-methyl-)quinoline; first
CC
     -!- SUBUNIT: Heterohexamer of two alpha chains, two beta chains, and
CC
CC
         two gamma chains (Probable).
DR
     PIR; S66606; S66606.
KW
     Oxidoreductase; Flavoprotein; FAD; Molybdenum.
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1213 MW; 869094322B1DC2CA CRC64;
SQ
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+04;
  Matches
             2; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            7 LK 8
Qу
              8 LK 9
Db
RESULT 14
RS30 ONCMY
     RS30 ONCMY
                    STANDARD;
                                   PRT;
                                           11 AA.
ΙD
     P83328;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
     40S ribosomal protein S30 (Fragment).
DE
GN
     FAU.
OS
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopteryqii; Salmoniformes; Salmonidae; Oncorhynchus.
OX
     NCBI TaxID=8022;
RN
     [1]
RP
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin mucus;
RX
     MEDLINE=22142142; PubMed=12147245;
RA
     Fernandes J.M.O., Smith V.J.;
RТ
     "A novel antimicrobial function for a ribosomal peptide from rainbow
RT
     trout skin.";
RL
     Biochem. Biophys. Res. Commun. 296:167-171(2002).
```

```
-!- FUNCTION: Has antibacterial activity against Gram-positive
CC
     -!- MASS SPECTROMETRY: MW=6676.6; METHOD=MALDI.
CC
     -!- SIMILARITY: Belongs to the S30E family of ribosomal proteins.
CC
     Ribosomal protein; Antibiotic.
KW
FT
     NON TER
                  11
                         11
                11 AA; 1123 MW;
     SEQUENCE
                                  2312AB630DD735B8 CRC64;
SO
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.8e+04;
  Best Local Similarity
                                                  0; Indels
             2; Conservative 0; Mismatches
  Matches
                                                                  0; Gaps
                                                                              0;
            2 GS 3
Qу
              Db
            4 GS 5
RESULT 15
ANGT CRIGE
ΙD
     ANGT CRIGE
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P09037:
     01-NOV-1988 (Rel. 09, Created)
DT
     01-NOV-1988 (Rel. 09, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
     Crinia-angiotensin II.
DE
     Crinia georgiana (Quacking frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Crinia.
     NCBI TaxID=8374;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Skin secretion;
     MEDLINE=80024575; PubMed=488254;
RX
     Erspamer V., Melchiorri P., Nakajima T., Yasuhara T., Endean R.;
RA
     "Amino acid composition and sequence of crinia-angiotensin, an
RT
     angiotensin II-like endecapeptide from the skin of the Australian
RT
     frog Crinia georgiana.";
RT
     Experientia 35:1132-1133(1979).
RL
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     PIR; S07207; S07207.
DR
KW
     Vasoconstrictor.
SQ
     SEQUENCE
                11 AA; 1271 MW; 8A0921F7DB50440A CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
  Matches
             1; Conservative
                                 0; Mismatches
                                                                              0;
                                                    0;
                                                       Indels
                                                                  0; Gaps
            1 A 1
Qу
Db
            1 A 1
RESULT 16
ASL1 BACSE
     ASL1 BACSE
                    STANDARD;
                                   PRT;
                                            11 AA.
```

CC

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P83146;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Acharan sulfate lyase 1 (EC 4.2.2.-) (Fragment).
DE
OS
     Bacteroides stercoris.
     Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
OC
     Bacteroidaceae; Bacteroides.
OC
     NCBI TaxID=46506;
OX
RN
     SEQUENCE, FUNCTION, ENZYME REGULATION, AND SUBUNIT.
RP
RC
     STRAIN=HJ-15:
     MEDLINE=21223019; PubMed=11322884;
RX
     Kim B.-T., Hong S.-W., Kim W.-S., Kim Y.S., Kim D.-H.;
RA
     "Purification and characterization of acharan sulfate lyases, two
RT
RT
     novel heparinases, from Bacteroides stercoris HJ-15.";
RL
     Eur. J. Biochem. 268:2635-2641(2001).
CC
     -!- FUNCTION: Degrades acharan sulfate and, to a lesser extent,
CC
         heparin and heparan sulfate.
     -!- ENZYME REGULATION: Inhibited by cupric ion, nitrogen and cobalt.
CC
CC
         Activated by reducing agents, such as DL-dithiothreitol and 2-
CC
         mercaptoethanol.
     -!- SUBUNIT: Monomer.
CC
     -!- PTM: The N-terminus is blocked.
CC
CC
     -!- MISCELLANEOUS: Has an isoelectric point of 8.6. Its optimum pH is
CC
         7.2 and optimum temperature 45 degrees Celsius.
KW
     Lyase; Heparin-binding.
     NON TER
FT
                  1
     NON TER
FT
                  11
                         11
     SEQUENCE
SQ
                11 AA; 1395 MW; 01B2DAA241E865AB CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
  Matches
             1; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            3 S 3
Qу
Db
            5 S 5
RESULT 17
ASL2 BACSE
     ASL2 BACSE
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P83147;
DT
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Acharan sulfate lyase 2 (EC 4.2.2.-) (Fragment).
DE
OS
     Bacteroides stercoris.
     Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
OC
OC
     Bacteroidaceae; Bacteroides.
OX
     NCBI TaxID=46506;
RN
RP
     SEQUENCE, FUNCTION, ENZYME REGULATION, AND SUBUNIT.
RC
     STRAIN=HJ-15;
RX
     MEDLINE=21223019; PubMed=11322884;
RA
     Kim B.-T., Hong S.-W., Kim W.-S., Kim Y.S., Kim D.-H.;
```

```
RT
     "Purification and characterization of acharan sulfate lyases, two
RT
     novel heparinases, from Bacteroides stercoris HJ-15.";
     Eur. J. Biochem. 268:2635-2641(2001).
RL
     -!- FUNCTION: Degrades acharan sulfate and, to a lesser extent,
CC
CC
         heparin and heparan sulfate.
     -!- ENZYME REGULATION: Inhibited by cupric ion, nitrogen and lead.
CC
         Activated by reducing agents, such as DL-dithiothreitol and 2-
CC
         mercaptoethanol.
CC
     -!- SUBUNIT: Monomer.
CC
     -!- PTM: The N-terminus is blocked.
CC
     -!- MISCELLANEOUS: Has an isoelectric point of 8.6. Its optimum pH is
CC
         7.2 and optimum temperature 45 degrees Celsius.
CC
     Lyase; Heparin-binding.
KW
     NON TER
FT
                   1
                          1
     NON TER
                  11
FT
                         11
SO
     SEQUENCE
                11 AA; 1195 MW;
                                  D79D897C7AA451AD CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
  Matches
             1; Conservative
                                 0; Mismatches
                                                       Indels
                                                                  0; Gaps
                                                                               0;
            1 A 1
Qу
Db
            4 A 4
RESULT 18
BPP3 BOTIN
ID
     BPP3 BOTIN
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P30423;
     01-APR-1993 (Rel. 25, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
     Bradykinin-potentiating peptide S4,3,2 (10C) (Angiotensin-converting
DE
DE
     enzyme inhibitor).
     Bothrops insularis (Island jararaca) (Queimada jararaca).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OX
     NCBI TaxID=8723;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
     MEDLINE=90351557; PubMed=2386615;
RX
RA
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RT
     "Primary structure and biological activity of bradykinin potentiating
RT
     peptides from Bothrops insularis snake venom.";
RL
     J. Protein Chem. 9:221-227(1990).
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; C37196; C37196.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
                                   PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
                   1
                          1
SQ
     SEQUENCE
                11 AA; 1199 MW; 20B25813C7741777 CRC64;
```

```
Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
  Matches
             1: Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            7 L 7
Qу
            2 L 2
Db
RESULT 19
BPP4 BOTIN
     BPP4 BOTIN
ID
                    STANDARD;
                                   PRT;
                                           11 AA.
     P30424;
AC
     01-APR-1993 (Rel. 25, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     Bradykinin-potentiating peptide S4,1,2 (Angiotensin-converting
     enzyme inhibitor).
DE
OS
     Bothrops insularis (Island jararaca) (Queimada jararaca).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
     Viperidae; Crotalinae; Bothrops.
OC
     NCBI TaxID=8723;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
    MEDLINE=90351557; PubMed=2386615;
RX
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RA
RT
     "Primary structure and biological activity of bradykinin potentiating
     peptides from Bothrops insularis snake venom.";
RT
     J. Protein Chem. 9:221-227(1990).
RL
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; D37196; D37196.
     Hypotensive agent; Pyrrolidone carboxylic acid.
KW
FT
    MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
SO
     SEOUENCE
                11 AA; 1143 MW;
                                  20BBBF13C7741777 CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
             1; Conservative
 Matches
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 G 2
Qy
Db
            2 G 2
RESULT 20
BPPB AGKHA
     BPPB AGKHA
                    STANDARD;
                                   PRT:
                                           11 AA.
ID
AC
     P01021;
DT
     21-JUL-1986 (Rel. 01, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
     Bradykinin-potentiating peptide B (Angiotensin-converting
DE
```

```
DE
     enzyme inhibitor).
     Agkistrodon halys blomhoffi (Mamushi) (Gloydius blomhoffii).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Gloydius.
OC
     NCBI TaxID=242054;
OX
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Venom;
RC
     Kato H., Suzuki T.;
RA
     "Amino acid sequence of bradykinin-potentiating peptide isolated from
RT
     the venom of Agkistrodon halys blomhoffii.";
RT
     Proc. Jpn. Acad., B, Phys. Biol. Sci. 46:176-181(1970).
RL
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; A01254; XASNBA.
     Hypotensive agent; Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                         1
SQ
     SEQUENCE
                11 AA; 1199 MW; 295CBF0627741777 CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
 Matches
            1; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                       Gaps
                                                                                0;
            2 G 2
Qу
            2 G 2
Db
RESULT 21
BPP AGKHP
                    STANDARD;
                                    PRT;
ID
     BPP AGKHP
                                            11 AA.
AC
     P04562;
     13-AUG-1987 (Rel. 05, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update) 28-FEB-2003 (Rel. 41, Last annotation update)
DT
DT
DE
     Bradykinin-potentiating peptide (Angiotensin-converting
DE
     enzyme inhibitor).
     Agkistrodon halys pallas (Chinese water mocassin) (Gloydius halys
OS
OS
     pallas).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
OC
     Viperidae; Crotalinae; Gloydius.
OX
     NCBI TaxID=8714;
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Venom;
RC
RX
     MEDLINE=86177022; PubMed=3008123;
RA
     Chi C.-W., Wang S.-Z., Xu L.-G., Wang M.-Y., Lo S.-S., Huang W.-D.;
RT
     "Structure-function studies on the bradykinin potentiating peptide
RT
     from Chinese snake venom (Agkistrodon halys pallas).";
RL
     Peptides 6 Suppl. 3:339-342(1985).
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
```

```
CC
         It acts as an indirect hypotensive agent.
     PIR; JC0002; XAVIBH.
DR
    Hypotensive agent; Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
    MOD RES
FT
                   1
                          1
                11 AA; 1112 MW; 30BABF1277686777 CRC64;
     SEQUENCE
SO
                           9.1%; Score 1; DB 1; Length 11;
  Ouery Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
            1; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 G 2
Qу
            2 G 2
Db
RESULT 22
CA21 LITCI
     CA21 LITCI
                    STANDARD;
                                   PRT;
                                           11 AA.
ΙD
     P82087;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
    Caerulein 2.1/2.1Y4.
    Litoria citropa (Australian blue mountains tree frog).
OS
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
     NCBI TaxID=94770;
OX
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
    MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 2.1Y4 differs from isoform 2.1 in not being
CC
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1372; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
KW
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
                          4
                                  SULFATION.
FT
                   4
     MOD RES
                                  AMIDATION.
FT
                  11
                         11
                11 AA; 1312 MW; 10DAB7C4EDD861BB CRC64;
SQ
     SEQUENCE
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                0; Mismatches
                                                                  0;
                                                                      Gaps
                                                                              0;
             1; Conservative
                                                   0; Indels
  Matches
```

```
2 G 2
Qу
            6 G 6
Db
RESULT 23
CA22 LITCI
     CA22 LITCI
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P82088;
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Caerulein 2.2/2.2Y4.
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
RT
     "Caerulein-like peptides from the skin glands of the Australian blue
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
     -!- PTM: Isoform 2.2Y4 differs from isoform 2.2 in not being
CC
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1388; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     InterPro; IPR001651; Gastrin.
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
KW
     Pyrrolidone carboxylic acid.
     MOD RES
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
                   1
                          1
     MOD RES
                   4
                          4
                                   SULFATION.
_{\rm LT}
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1328 MW; 10DAB894EDD861BB CRC64;
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
             1; Conservative 0; Mismatches
  Matches
                                                    0; Indels
                                                                   0; Gaps
            2 G 2
Qу
Db
            6 G 6
RESULT 24
CA31 LITCI
                                            11 AA.
     CA31 LITCI
                                    PRT;
ID
                    STANDARD;
AC
     P82089;
```

16-OCT-2001 (Rel. 40, Created)

```
16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Caerulein 3.1/3.1Y4.
DE
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
     NCBI TaxID=94770;
OX
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Skin secretion;
RX
    MEDLINE=20057701; PubMed=10589099;
    Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 3.1Y4 differs from isoform 3.1 in not being
CC
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1407; METHOD=Electrospray.
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
    InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE_NEG.
DR
    Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
KW
FT
    MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
    MOD RES
FT
                   4
                          4
                                  SULFATION.
    MOD RES
                         11
FT
                  11
                                  AMIDATION.
     SEQUENCE
                                  10DAB7D67861A86B CRC64;
                11 AA; 1347 MW;
ŞQ
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                    0; Indels
                                0; Mismatches
                                                                  0; Gaps
                                                                              0;
  Matches
             1; Conservative
            2 G 2
Qy
            5 G 5
Db
RESULT 25
CA32 LITCI
     CA32 LITCI
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P82090;
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Caerulein 3.2/3.2Y4.
DE
     Litoria citropa (Australian blue mountains tree frog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
OX
     NCBI TaxID=94770;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
```

DT

```
TISSUE=Skin secretion;
RC
    MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
    montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 3.2Y4 differs from isoform 3.2 in not being
CC
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1423; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
    MOD RES
                   1
                          1
    MOD RES
                   4
                          4
                                  SULFATION.
FT
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
                11 AA; 1363 MW; 10DAB8867861A86B CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
             1; Conservative
  Matches
            2 G 2
Qy
            5 G 5
Db
RESULT 26
CEP1 ACHFU
     CEP1 ACHFU
                                   PRT;
                                           11 AA.
ID
                    STANDARD;
AC
     P22790;
     01-AUG-1991 (Rel. 19, Created)
DT
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
     01-DEC-1992 (Rel. 24, Last annotation update)
DT
     Cardio-excitatory peptide-1 (ACEP-1).
DE
OS
     Achatina fulica (Giant African snail).
     Eukaryota; Metazoa; Mollusca; Gastropoda; Pulmonata; Stylommatophora;
OC
     Sigmurethra; Achatinoidea; Achatinidae; Achatina.
OC
OX
     NCBI TaxID=6530;
RN
     [1]
RP
     SEQUENCE.
RC
     STRAIN=Ferussac; TISSUE=Heart atrium;
     MEDLINE=90211261; PubMed=2322251;
RX
     Fujimoto K., Ohta N., Yoshida M., Kubota I., Muneoka Y., Kobayashi M.;
RA
     "A novel cardio-excitatory peptide isolated from the atria of the
RT
     African giant snail, Achatina fulica.";
RT
     Biochem. Biophys. Res. Commun. 167:777-783(1990).
RL
     -!- FUNCTION: Potentiates the beat of the ventricle, and has also
CC
         excitatory actions on the penis retractor muscle, the buccal
CC
         muscle and the identified neurons controlling the buccal muscle
CC
CC
         movement of achatina.
CC
     -!- SIMILARITY: TO POSSIBLE PEPTIDE L5 FROM APLYSIA.
```

```
PIR; A34662; A34662.
DR
     Hormone; Amidation.
KW
    MOD RES
                  11
                         11
                                  AMIDATION.
FT
     SEQUENCE
                11 AA; 1305 MW; 82D6D5B9C7741365 CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                               0;
           1; Conservative 0; Mismatches
                                                  0; Indels
                                                                   0; Gaps
            3 S 3
Qy
              -1
Db
            1 S 1
RESULT 27
CORZ PERAM
     CORZ PERAM
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
AC
     P11496;
     01-OCT-1989 (Rel. 12, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Corazonin.
     Periplaneta americana (American cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
OC
     Blattidae; Periplaneta.
     NCBI TaxID=6978;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Corpora cardiaca;
    MEDLINE=89325572; PubMed=2753132;
RX
     Veenstra J.A.;
RA
     "Isolation and structure of corazonin, a cardioactive peptide from
RT
RT
     the American cockroach.";
     FEBS Lett. 250:231-234(1989).
RL
     -!- FUNCTION: Cardioactive peptide. Corazonin is probably involved
CC
         in the physiological regulation of the heart beat.
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     PIR; S05002; S05002.
DR
     Neuropeptide; Amidation; Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1 .
FT
     MOD RES
                         11
                                  AMIDATION.
                  11
                11 AA; 1387 MW; C7CFF32D6415AB46 CRC64;
     SEQUENCE
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
             1; Conservative 0; Mismatches
                                                                               0;
  Matches
                                                  0; Indels
                                                                   0; Gaps
            3 S 3
Qу
            6 S 6
Db
RESULT 28
CX5B CONAL
                                    PRT;
                                            11 AA.
ID
     CX5B CONAL
                    STANDARD;
AC
     P58849;
```

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DT
     28-FEB-2003 (Rel. 41, Created)
    28-FEB-2003 (Rel. 41, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Conotoxin au5b.
DE
     Conus aulicus (Court cone).
OS
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
    Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
    Neogastropoda; Conoidea; Conidae; Conus.
OC
    NCBI TaxID=89437;
OX
RN
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
    TISSUE=Venom;
    MEDLINE=99452958; PubMed=10521453;
RX
    Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
    Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
     "The T-superfamily of conotoxins.";
RT
RL
     J. Biol. Chem. 274:30664-30671(1999).
RN
RP
     ERRATUM.
    Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
    Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
    Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     J. Biol. Chem. 274:36030-36030(1999).
RL
     -!- FUNCTION: Causes dorsal fins drooping in fish. No effect is
CC
         observed when injected into mice (By similarity).
CC
    -!- SUBCELLULAR LOCATION: Secreted.
CC
    -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
    -!- MASS SPECTROMETRY: MW=1388.6; METHOD=LSIMS.
CC
    -!- SIMILARITY: Belongs to the conotoxin T-superfamily.
CC
     PIR; B59146; B59146.
DR
KW
    Toxin.
                   2
                          9
     DISULFID
FT
FT
    DISULFID
                   3
                         10
                11 AA; 1393 MW; 21A36775440042D7 CRC64;
     SEQUENCE
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
            1; Conservative
                                 0; Mismatches
                                                                  0; Gaps
                                                                              0;
 Matches
                                                    0; Indels
            5 V 5
Qу
            5 V 5
Db
RESULT 29
EFG CLOPA
                                   PRT;
                                           11 AA.
     EFG CLOPA
                    STANDARD;
ID
     P81350;
AC
     15-JUL-1998 (Rel. 36, Created)
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Elongation factor G (EF-G) (CP 5) (Fragment).
DE
     FUSA.
GN
     Clostridium pasteurianum.
OS
     Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae;
OC
OC
     Clostridium.
```

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OX
     NCBI TaxID=1501;
RN
     [1]
     SEQUENCE.
RP
     STRAIN=W5;
RC
     MEDLINE=98291870; PubMed=9629918;
RX
     Flengsrud R., Skjeldal L.;
RA
     "Two-dimensional gel electrophoresis separation and N-terminal
RT
     sequence analysis of proteins from Clostridium pasteurianum W5.";
RT
     Electrophoresis 19:802-806(1998).
RL
     -!- FUNCTION: This protein promotes the GTP-dependent translocation of
CC
         the nascent protein chain from the A-site to the P-site of the
CC
CC
         ribosome.
     -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC
     -!- SIMILARITY: Belongs to the GTP-binding elongation factor family.
CC
CC
         EF-G/EF-2 subfamily.
     InterPro; IPR000795; EF GTPbind.
DR
     PROSITE; PS00301; EFACTOR GTP; PARTIAL.
DR
KW
     Elongation factor; Protein biosynthesis; GTP-binding.
FT
                          11
     SEQUENCE
                11 AA;
                        1337 MW; 412E71F1D9C33B17 CRC64;
SO
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                           100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                                0;
             1; Conservative
                                  0; Mismatches
                                                     0; Indels
                                                                    0; Gaps
            6 K 6
Qу
            1 K 1
Db
RESULT 30
ES1 RAT
     ES1 RAT
                     STANDARD;
                                    PRT;
                                             11 AA.
ID
AC
     P56571:
     15-DEC-1998 (Rel. 37, Created)
DT
     15-DEC-1998 (Rel. 37, Last sequence update)
15-MAR-2004 (Rel. 43, Last annotation update)
DT
DT
     ES1 protein, mitochondrial (Fragment).
DE
     Rattus norvegicus (Rat).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX
     NCBI TaxID=10116;
RN
     [1]
RP
     SEQUENCE.
RC
     STRAIN=Wistar; TISSUE=Heart;
RA
     Li X.-P., Pleissner K.-P., Scheler C., Regitz-Zagrosek V., Salikov J.,
RA
     Jungblut P.R.;
RL
     Submitted (SEP-1998) to Swiss-Prot.
     -!- SUBCELLULAR LOCATION: Mitochondrial (Potential).
CC
     -!- MISCELLANEOUS: By 2D-PAGE, the determined pI of this protein (spot
CC
CC
         P2) is: 8.9, its MW is: 25 kDa.
     -!- SIMILARITY: BELONGS TO THE ES1 FAMILY.
CC
KW
     Mitochondrion.
FT
     NON TER
                  11
                          11
     SEQUENCE
                11 AA; 1142 MW; D862272D32C72DC2 CRC64;
SQ
  Query Match
                            9.1%; Score 1; DB 1; Length 11;
```

```
Best Local Similarity 100.0%; Pred. No. 1.1e+05;
                                                  0; Indels
  Matches
            1; Conservative 0; Mismatches
                                                                  0; Gaps
                                                                              0;
            1 A 1
Qу
            2 A 2
Db
RESULT 31
FAR6 PENMO
     FAR6 PENMO
ID
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P83321;
DT
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
     FMRFamide-like neuropeptide FLP6 (DGRTPALRLRF-amide).
DE
     Penaeus monodon (Penoeid shrimp).
OS
OC
     Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
     Eumalacostraca; Eucarida; Decapoda; Dendrobranchiata; Penaeoidea;
OC
OC
     Penaeidae; Penaeus.
OX
     NCBI TaxID=6687;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Eyestalk;
     MEDLINE=21956277; PubMed=11959015;
RX
     Sithigorngul P., Pupuem J., Krungkasem C., Longyant S.,
RA
     Chaivisuthangkura P., Sithigorngul W., Petsom A.;
RA
     "Seven novel FMRFamide-like neuropeptide sequences from the eyestalk
RT
     of the giant tiger prawn Penaeus monodon.";
RT
     Comp. Biochem. Physiol. 131B:325-337(2002).
RL
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- MASS SPECTROMETRY: MW=1301.8; METHOD=MALDI.
CC
CC
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC
DR
     GO; GO:0007218; P:neuropeptide signaling pathway; TAS.
     Neuropeptide; Amidation.
KW
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1301 MW; 9A19C860072DC771 CRC64;
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
            1; Conservative 0; Mismatches
  Matches
                                                  0: Indels
                                                                  0; Gaps
                                                                              0:
            2 G 2
Qу
            2 G 2
Db
RESULT 32
FAR9 CALVO
     FAR9 CALVO
ID
                    STANDARD;
                                   PRT:
                                           11 AA.
     P41864;
AC
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     01-NOV-1995 (Rel. 32, Last annotation update)
DT
DE
     CalliFMRFamide 9.
OS
     Calliphora vomitoria (Blue blowfly).
```

```
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
     Calliphoridae; Calliphora.
OC
     NCBI TaxID=27454;
OX
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Thoracic ganglion;
RC
     MEDLINE=92196111; PubMed=1549595;
RX
     Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA
     Rehfeld J.F., Thorpe A.;
RA
RT
     "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
RT
     neuropeptides (designated calliFMRFamides) from the blowfly
RТ
     Calliphora vomitoria.";
RL
     Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
CC
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC
         family.
DR
     PIR; I41978; I41978.
     Neuropeptide; Amidation.
KW
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1359 MW; 8160CE46CAA44321 CRC64;
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            3 S 3
Qу
            1 S 1
Db
RESULT 33
HS70 PINPS
     HS70 PINPS
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P81672:
     15-JUL-1999 (Rel. 38, Created)
DT
     15-JUL-1999 (Rel. 38, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Heat shock 70 kDa protein (Fragment).
DE
     Pinus pinaster (Maritime pine).
OS
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
OC
     Spermatophyta; Coniferopsida; Coniferales; Pinaceae; Pinus.
     NCBI TaxID=71647;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Needle;
RX
     MEDLINE=99274088; PubMed=10344291;
RA
     Costa P., Pionneau C., Bauw G., Dubos C., Bahrman N., Kremer A.,
     Frigerio J.-M., Plomion C.;
RA
RT
     "Separation and characterization of needle and xylem maritime pine
RT
     proteins.";
     Electrophoresis 20:1098-1108(1999).
RL
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this protein
CC
         (spot N164) is: 5.4, its MW is: 73 kDa.
CC
     -!- SIMILARITY: Belongs to the heat shock protein 70 family.
CC
ΚW
     ATP-binding; Heat shock; Multigene family.
FT
     NON TER
                   1
                          1
FT
     NON TER
                  11
                         11
```

```
11 AA; 1228 MW; 037C1BE8DAA44DD0 CRC64;
     SEQUENCE
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                              0;
                                0; Mismatches
             1; Conservative
                                                   0; Indels
                                                                 0; Gaps
            5 V 5
Qy
             1 V 1
Db
RESULT 34
LADD ONCMY
     LADD ONCMY
                                   PRT:
ID
                    STANDARD:
                                           11 AA.
AC
     P81018;
DT
     01-NOV-1997 (Rel. 35, Created)
DT
     01-NOV-1997 (Rel. 35, Last sequence update)
     15-DEC-1998 (Rel. 37, Last annotation update)
DT
     Ladderlectin (Fragment).
DE
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OC
OX
     NCBI TaxID=8022;
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Blood;
RC
     MEDLINE=97293418; PubMed=9149391;
RX
     Jensen L.E., Thiel S., Petersen T.E., Jensenuis J.C.;
RA
     "A rainbow trout lectin with multimeric structure.";
RT
     Comp. Biochem. Physiol. 116B:385-390(1997).
RL
     -!- FUNCTION: Lectin that binds sepharose.
CC
     -!- COFACTOR: Calcium is essential for sepharose binding.
CC
     -!- SUBUNIT: Multimeric.
CC
     Lectin; Calcium.
KW
     NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA; 1163 MW;
                                  0B26227FF6D45404 CRC64;
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
             1; Conservative
                               0; Mismatches
                                                                              0;
                                                                0; Gaps
                                                   0; Indels
            1 A 1
Qу
Db
            1 A 1
RESULT 35
LSK1 LEUMA
     LSK1 LEUMA
                    STANDARD;
                                   PRT;
                                           11 AA.
ID
     P04428;
AC
     13-AUG-1987 (Rel. 05, Created)
DT
     13-AUG-1987 (Rel. 05, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Leucosulfakinin-I (LSK-I).
DE
     Leucophaea maderae (Madeira cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
```

```
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC
     Blaberidae; Leucophaea.
     NCBI TaxID=6988;
OX
RN
     [1]
RP
     SEQUENCE.
    MEDLINE=86315858; PubMed=3749893;
RX
     Nachman R.J., Holman G.M., Haddon W.F., Ling N.;
RA
     "Leucosulfakinin, a sulfated insect neuropeptide with homology to
RT
     gastrin and cholecystokinin.";
RT
     Science 234:71-73(1986).
RL
     -!- FUNCTION: Change the frequency and amplitude of contractions of
CC
         the hingut. Inhibits muscle contraction of hindgut.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     PIR; A01622; GMROL.
DR
    InterPro; IPR001651; Gastrin.
DR
    PROSITE; PS00259; GASTRIN; 1.
DR
    Hormone; Amidation; Sulfation.
KW
FT
    MOD RES
                   6
                          6
                                  SULFATION.
    MOD RES
FT
                  11
                         11
                                  AMIDATION.
     SEOUENCE
                11 AA; 1459 MW; 7E4E0680E86B5AAB CRC64;
SO
 Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                              0;
            1; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0;
                                                                      Gaps
            2 G 2
Qу
            7 G 7
Db
RESULT 36
LSKP PERAM
     LSKP PERAM
                                           11 AA.
ID
                    STANDARD;
                                   PRT;
     P36885;
AC
DT
     01-JUN-1994 (Rel. 29, Created)
     01-JUN-1994 (Rel. 29, Last sequence update)
DT
     01-FEB-1996 (Rel. 33, Last annotation update)
DT
     Perisulfakinin (Pea-SK-I).
DE
     Periplaneta americana (American cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
OC
     Blattidae; Periplaneta.
     NCBI TaxID=6978;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Corpora cardiaca;
    MEDLINE=90137190; PubMed=2615921;
RX
RA
     Veenstra J.A.;
     "Isolation and structure of two gastrin/CCK-like neuropeptides from
RT
RT
     the American cockroach homologous to the leucosulfakinins.";
RL
     Neuropeptides 14:145-149(1989).
CC
     -!- FUNCTION: Stimulates hindgut contractions.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     PIR; A60656; A60656.
DR
     InterPro; IPR001651; Gastrin.
     PROSITE; PS00259; GASTRIN; 1.
DR
KW
     Hormone; Amidation; Sulfation.
```

```
MOD RES
                   6
                           6
                                   SULFATION.
FT
FT
     MOD RES
                  11
                         11
                                   AMIDATION.
     SEQUENCE
                                   8B4E0680E86B5AAA CRC64;
SQ
                11 AA;
                        1445 MW;
  Query Match
                            9.1%;
                                   Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
             1; Conservative
                                  0; Mismatches
                                                                               0;
  Matches
                                                    0;
                                                       Indels
                                                                   0; Gaps
            2 G 2
Qу
            7 G 7
Db
RESULT 37
MLG THETS
                                    PRT;
     MLG THETS
                    STANDARD;
                                            11 AA.
     P41989;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
DΕ
     Melanotropin gamma (Gamma-melanocyte stimulating hormone) (Gamma-MSH).
OS
     Theromyzon tessulatum (Leech).
     Eukaryota; Metazoa; Annelida; Clitellata; Hirudinida; Hirudinea;
OC
OC
     Rhynchobdellida; Glossiphoniidae; Theromyzon.
OX
     NCBI TaxID=13286;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Brain;
RX
     MEDLINE=94298944; PubMed=8026574;
     Salzet M., Wattez C., Bulet P., Malecha J.;
RA
RT
     "Isolation and structural characterization of a novel peptide related
     to gamma-melanocyte stimulating hormone from the brain of the leech
RT
     Theromyzon tessulatum.";
RT
RL
     FEBS Lett. 348:102-106(1994).
CC
     -!- SIMILARITY: Belongs to the POMC family.
DR
     PIR; S45698; S45698.
KW
     Hormone; Amidation.
\Gamma T
     MOD RES
                         11
                                   AMIDATION.
                  11
                                   2DB8FACE6409C1E8 CRC64;
SO
     SEOUENCE
                11 AA; 1486 MW;
                                   Score 1; DB 1; Length 11;
  Query Match
                            9.1%;
  Best Local Similarity
                           100.0%; Pred. No. 1.1e+05;
                                 0; Mismatches
                                                                               0;
  Matches
             1; Conservative
                                                    0; Indels
                                                                   0; Gaps
            5 V 5
Qу
            2 V 2
Db
RESULT 38
NXSN PSETE
ID
     NXSN PSETE
                     STANDARD;
                                    PRT;
                                            11 AA.
     P59072;
AC
DT
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
     Short neurotoxin N1 (Alpha neurotoxin) (Fragment).
DΕ
```

```
OS
     Pseudonaja textilis (Eastern brown snake).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Elapidae; Acanthophiinae; Pseudonaja.
OC
     NCBI TaxID=8673;
OX
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Venom;
     MEDLINE=99449602; PubMed=10518793;
RX
     Gong N.L., Armugam A., Jeyaseelan K.;
RA.
     "Postsynaptic short-chain neurotoxins from Pseudonaja textilis: cDNA
RT
     cloning, expression and protein characterization.";
RT
     Eur. J. Biochem. 265:982-989(1999).
RL
CC
     -!- FUNCTION: Lethal neurotoxin, binds and inhibits nicotinic
         acetylcholine receptors (nAChR).
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom gland.
CC
     -!- MASS SPECTROMETRY: MW=6236; METHOD=Electrospray.
     -!- MISCELLANEOUS: LD(50) is 0.84 mg/kg by intravenous injection.
CC
CC
     -!- SIMILARITY: Belongs to the snake toxin family.
DR
     InterPro; IPR003571; Snake toxin.
DR
     PROSITE; PS00272; SNAKE TOXIN; PARTIAL.
KW
     Toxin; Neurotoxin; Postsynaptic neurotoxin;
KW
     Acetylcholine receptor inhibitor; Multigene family.
FT
     UNSURE
                   3
                          3
     NON TER
FT
                  11
                         1.1
     SEQUENCE
                11 AA; 1319 MW; OD1EF0C81B58732B CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
  Matches
            1; Conservative
                                0; Mismatches
                                                   0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            7 L 7
Qу
              1
Db
            1 L 1
RESULT 39
PKC1 CARMO
     PKC1 CARMO
                                   PRT;
ID
                    STANDARD;
                                           11 AA.
     P82684;
AC
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Pyrokinin-1 (Cam-PK-1) (FXPRL-Amide).
DE
OS
     Carausius morosus (Indian stick insect).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Phasmatodea; Euphasmida; Phasmatoidea;
OC
     Heteronemiidae; Carausius.
OX
     NCBI TaxID=7022;
RN
RP
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RC
     TISSUE=Corpora cardiaca;
RA
     Predel R., Kellner R., Gaede G.;
RT
     "Myotropic neuropeptides from the retrocerebral complex of the stick
RT
     insect, Carausius morosus (Phasmatodea: Lonchodidae).";
RL
     Eur. J. Entomol. 96:275-278(1999).
```

```
CC
     -!- FUNCTION: Mediates visceral muscle contractile activity (myotropic
CC
         activity).
CC
     -!- MASS SPECTROMETRY: MW=1235; METHOD=MALDI.
CC
     -!- SIMILARITY: Belongs to the pyrokinin family.
     InterPro; IPR001484; Pyrokinin.
DR
     PROSITE; PS00539; PYROKININ; FALSE NEG.
DR
KW
     Neuropeptide; Amidation; Pyrokinin.
FT
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1236 MW; 2BFA5225BB46C1A8 CRC64;
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
             1; Conservative
                              0; Mismatches
                                                   0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
Qy
            2 G 2
Db
            3 G 3
RESULT 40
PVK1 PERAM
     PVK1 PERAM
                    STANDARD;
                                   PRT;
                                            11 AA.
ΙD
     P41837;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Periviscerokinin-1 (Pea-PVK-1).
DE
OS
     Periplaneta americana (American cockroach).
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
     Blattidae; Periplaneta.
OC
    NCBI TaxID=6978;
OX
RN
     [1]
RP
     SEQUENCE, AND SYNTHESIS.
     TISSUE=Abdominal perisympathetic organs;
RC
    MEDLINE=95232021; PubMed=7716075;
RX
RA
     Predel R., Linde D., Rapus J., Vettermann S., Penzlin H.;
     "Periviscerokinin (Pea-PVK): a novel myotropic neuropeptide from the
RT
     perisympathetic organs of the American cockroach.";
RT
RL
     Peptides 16:61-66(1995).
CC
     -!- FUNCTION: MYOACTIVE PEPTIDE; HAS EXCITORY ACTIONS ON THE
CC
         HYPERNEURAL MUSCLE.
KW
     Neuropeptide; Amidation.
FT
    MOD RES
                 11
                        11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1114 MW;
                                  39DB5419D7605728 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
 Matches
             1; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 G 2
Qу
Db
            1 G 1
```

RESULT 41 RANC RANPI

```
RANC RANPI
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
     P08951;
AC
     01-NOV-1988 (Rel. 09, Created)
DT
     01-NOV-1988 (Rel. 09, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Ranatensin-C.
OS
     Rana pipiens (Northern leopard frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OX
     NCBI TaxID=8404;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=84131098; PubMed=6141890;
RA
     Nakajima T.;
RL
     Unpublished results, cited by:
     Erspamer V., Erspamer G.F., Mazzanti G., Endean R.;
RL
RL
     Comp. Biochem. Physiol. 77C:99-108(1984).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the bombesin/neuromedin B/ranatensin
         family.
CC
DR
     InterPro; IPR000874; Bombesin.
DR
     Pfam; PF02044; Bombesin; 1.
DR
     PROSITE; PS00257; BOMBESIN; 1.
     Amphibian defense peptide; Bombesin family; Amidation.
KW
FT
     MOD RES
                         11
                                  AMIDATION.
                 11
     SEQUENCE
SQ
                11 AA; 1304 MW;
                                  D6C9885A61ADC366 CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
  Matches
             1; Conservative 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                               0;
            1 A 1
Qу
            6 A 6
Db
RESULT 42
RE41 LITRU
     RE41 LITRU
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P82074:
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Rubellidin 4.1.
OS
     Litoria rubella (Desert tree frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=104895;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
     Steinborner S.T., Wabnitz P.A., Waugh R.J., Bowie J.H., Gao C.,
RA
RA
     Tyler M.J., Wallace J.C.;
RT
     "The structure of new peptides from the Australin red tree froq
```

```
RT
     'Litoria rubella'. The skin peptide profile as a probe for the study
RT
     of evolutionary trends of amphibians.";
     Aust. J. Chem. 49:955-963(1996).
RL
     -!- FUNCTION: Shows neither neuropeptide activity nor antibiotic
CC
CC
         activity.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
CC
     -!- MASS SPECTROMETRY: MW=1039; METHOD=FAB.
CC
     Amphibian defense peptide; Amidation.
KW
FT
    MOD RES
                 11
                        11
                                 AMIDATION.
     SEQUENCE
               11 AA;
                     1040 MW; 84ED5CBC2877205A CRC64;
SQ
  Query Match
                          9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
           1; Conservative 0; Mismatches
                                               0; Indels
                                                               0; Gaps
                                                                           0;
           2 G 2
Qу
           1 G 1
Db
RESULT 43
RR2 CONAM
    RR2 CONAM
                   STANDARD;
                                  PRT;
                                          11 AA.
     P42341;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
    28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
    Chloroplast 30S ribosomal protein S2 (Fragment).
GN
    Conopholis americana (Squawroot).
OS
    Chloroplast.
OG
OC
    Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
    lamiids; Lamiales; Orobanchaceae; Orobancheae; Conopholis.
    NCBI_TaxID=4179;
OX
RN
     [1]
RP
    SEQUENCE FROM N.A.
RX
    MEDLINE=92145776; PubMed=1723664;
    Taylor G., Wolfe K.H., Morden C.W., Depamphilis C.W., Palmer J.D.;
RA
RT
     "Lack of a functional plastid tRNA(Cys) gene is associated with loss
RT
    of photosynthesis in a lineage of parasitic plants.";
RL
    Curr. Genet. 20:515-518(1991).
CC
    -!- SIMILARITY: Belongs to the S2P family of ribosomal proteins.
     ______
CC
CC
    This SWISS-PROT entry is copyright. It is produced through a collaboration
CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
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    the European Bioinformatics Institute. There are no restrictions on its
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    use by non-profit institutions as long as its content is in no way
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    entities requires a license agreement (See http://www.isb-sib.ch/announce/
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    or send an email to license@isb-sib.ch).
CC
DR
    EMBL; X64567; CAA45868.1; -.
DR
    PIR; S32575; S32575.
DR
    HAMAP; MF 00291; -; 1.
DR
    InterPro; IPR001865; Ribosomal S2.
```

```
PROSITE; PS00962; RIBOSOMAL S2 1; PARTIAL.
DR
     PROSITE; PS00963; RIBOSOMAL S2 2; PARTIAL.
DR
     Ribosomal protein; Chloroplast.
KW
     NON TER
                  11
FT
                        11
                11 AA; 1497 MW; 76CD719954536B44 CRC64;
     SEQUENCE
SO
  Query Match
                          9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
           1; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
           7 L 7
Qу
           10 L 10
Db
RESULT 44
RRPL CHAV
ID
     RRPL CHAV
                   STANDARD; PRT; 11 AA.
AC
     P13179;
DT
     01-JAN-1990 (Rel. 13, Created)
DT
     01-JAN-1990 (Rel. 13, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
     RNA polymerase beta subunit (EC 2.7.7.48) (Large structural protein)
DE
DE
    (L protein) (Fragment).
GN
    Chandipura virus (strain I653514).
OS
OC
    Viruses; ssRNA negative-strand viruses; Mononegavirales;
OC
     Rhabdoviridae; Vesiculovirus.
    NCBI TaxID=11273;
OX
RN
     [1]
RP
    SEQUENCE FROM N.A.
    MEDLINE=89299473; PubMed=2741347;
RX
RA
    Masters P.S., Bhella R.S., Butcher M., Patel B., Ghosh H.P.,
RA
    Banerjee A.K.;
     "Structure and expression of the glycoprotein gene of Chandipura
RT
RT
    virus.";
    Virology 171:285-290(1989).
RL
CC
     -!- FUNCTION: THIS PROTEIN IS PROBABLY A COMPONENT OF THE ACTIVE
CC
        POLYMERASE. IT MAY FUNCTION IN RNA SYNTHESIS, CAPPING, AS WELL AS
CC
        METHYLATION OF CAPS, AND POLY(A) SYNTHESIS.
CC
    -!- CATALYTIC ACTIVITY: N nucleoside triphosphate = N diphosphate +
CC
        \{RNA\}(N).
CC
    -!- SUBUNIT: THOUGHT TO FORM A TRANSCRIPTION COMPLEX WITH THE
CC
        NUCLEOCAPSID (N) PROTEIN.
    -!- SIMILARITY: WITH THE L PROTEIN OF OTHER RHABDOVIRUSES AND
CC
CC
        PARAMYXOVIRUSES.
CC
CC
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CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC
    the European Bioinformatics Institute. There are no restrictions on its
CC
    use by non-profit institutions as long as its content is in no way
CC
    modified and this statement is not removed. Usage by and for commercial
CC
    entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC
    or send an email to license@isb-sib.ch).
CC
DR
    EMBL; J04350; AAA42917.1; -.
KW
    Transferase; RNA-directed RNA polymerase.
```

```
\Gamma T
    NON TER
                11
                       11
    SEQUENCE
SQ
               11 AA; 1189 MW; 0335D6E3AAB2D764 CRC64;
  Query Match
                         9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
           1; Conservative 0; Mismatches
                                             0; Indels
                                                             0; Gaps
                                                                        0;
           7 L 7
Qy
             1
           3 L 3
Db
RESULT 45
T2P1 PROVU
    T2P1 PROVU
TD
                  STANDARD;
                                 PRT:
                                        11 AA.
AC
    P31031;
DT
    01-JUL-1993 (Rel. 26, Created)
    01-JUL-1993 (Rel. 26, Last sequence update)
DT
    10-OCT-2003 (Rel. 42, Last annotation update)
DT
    Type II restriction enzyme PvuI (EC 3.1.21.4) (Endonuclease PvuI)
DE
    (R.PvuI) (Fragment).
DE
GN
    PVUIR.
    Proteus vulgaris.
OS
OC
    Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
    Enterobacteriaceae; Proteus.
OX
    NCBI TaxID=585;
RN
    [1]
    SEQUENCE FROM N.A.
RP
RC
    STRAIN=ATCC 13315;
    MEDLINE=93087186; PubMed=1454536;
RX
    Smith M.D., Longo M., Gerard G.F., Chatterjee D.K.;
RA
RT
    "Cloning and characterization of genes for the PvuI restriction and
RT
    modification system.";
    Nucleic Acids Res. 20:5743-5747(1992).
RL
CC
    -!- FUNCTION: RECOGNIZES THE DOUBLE-STRANDED SEQUENCE CGATCG AND
CC
        CLEAVES AFTER T-4.
CC
    -!- CATALYTIC ACTIVITY: Endonucleolytic cleavage of DNA to give
CC
        specific double-stranded fragments with terminal 5'-phosphates.
    _____
CC
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CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC
    the European Bioinformatics Institute. There are no restrictions on its
CC
    use by non-profit institutions as long as its content is in no way
    modified and this statement is not removed. Usage by and for commercial
CC
CC
    entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC
    or send an email to license@isb-sib.ch).
    ______
CC
DR
    EMBL; L04163; AAA25660.1; -.
DR
    PIR; S35490; S35490.
DR
    REBASE; 1541; PvuI.
KW
    Restriction system; Hydrolase; Nuclease; Endonuclease.
FT
    NON TER
             1
                       1
SQ
    SEQUENCE 11 AA; 1300 MW; 9F0CDE7955B72B1A CRC64;
                         9.1%; Score 1; DB 1; Length 11;
 Query Match
 Best Local Similarity
                        100.0%; Pred. No. 1.1e+05;
           1; Conservative 0; Mismatches 0; Indels
                                                            0; Gaps
```

```
3 S 3
Qу
            2 S 2
Db
RESULT 46
TIN4 HOPTI
     TIN4 HOPTI
                    STANDARD:
                                    PRT:
                                            11 AA.
AC
     P82654;
DT
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Tigerinin-4.
DE
OS
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
     Hoplobatrachus.
OX
     NCBI TaxID=103373;
RN
     [1]
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RP
     TISSUE=Skin secretion;
RC
RX
     PubMed=11031261;
RA
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
     Devi A.S., Nagaraj R., Sitaram N.;
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
RT
     tigerina.";
     J. Biol. Chem. 276:2701-2707(2001).
RL
CC
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin.
CC
CC
     -!- MASS SPECTROMETRY: MW=1247; METHOD=MALDI.
KW
     Amphibian defense peptide; Antibiotic.
FT
     DISULFID
                   3
                         11
     SEQUENCE
                11 AA; 1248 MW;
SQ
                                  117D8EFD37605DCB CRC64;
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
  Matches
             1; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            5 V 5
Qy
              1
Db
            2 V 2
RESULT 47
TKC2 CALVO
     TKC2 CALVO
                    STANDARD;
                                   PRT;
AC
     P41518;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Callitachykinin II.
OS
     Calliphora vomitoria (Blue blowfly).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
```

```
Calliphoridae; Calliphora.
OC
     NCBI TaxID=27454;
OX
RN
     [1]
     SEQUENCE, AND SYNTHESIS.
RP
     MEDLINE=95075727; PubMed=7984492;
RX
     Lundquist C.T., Clottens F.L., Holman G.M., Nichols R., Nachman R.J.,
RA
     Naessel D.R.;
RA
     "Callitachykinin I and II, two novel myotropic peptides isolated from
RT
     the blowfly, Calliphora vomitoria, that have resemblances to
RT
RT
     tachykinins.";
RL
     Peptides 15:761-768(1994).
CC
     -!- FUNCTION: Myoactive peptide.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: SOME SIMILARITY TO TACHYKININS.
KW
     Tachykinin; Neuropeptide; Amidation.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1103 MW;
                                  15D7E3F9C9CDD444 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
  Matches
           1; Conservative
                               0; Mismatches
                                                                              0;
                                                    0;
                                                       Indels
                                                                  0; Gaps
            2 G 2
Qу
              1
            1 G 1
Db
RESULT 48
TKN1 PSEGU
     TKN1 PSEGU
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
ΑĊ
     P42986;
     01-NOV-1995 (Rel. 32, Created)
DT
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Kassinin-like peptide K-I (PG-KI).
DE
     Pseudophryne quentheri (Guenther's toadlet).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
     SEOUENCE.
RP
RC
     TISSUE=Skin secretion;
    MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; B60409; B60409.
```

```
InterPro; IPR002040; Tachy Neurokinin.
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
     Pyrrolidone carboxylic acid.
ΚW
     MOD RES
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
                   1
                          1
FT
     MOD RES
                  11
                         11
                                   AMIDATION.
                11 AA; 1269 MW;
SO
     SEQUENCE
                                  3DBA7C37C9CB1AB7 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
  Matches
             1; Conservative
                                0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                               0;
Qу
            2 G 2
              1
Db
            9 G 9
RESULT 49
TKN1 UPEIN
     TKN1 UPEIN
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
     P82026;
AC
DT
     30-MAY-2000 (Rel. 39, Created)
DT
     30-MAY-2000 (Rel. 39, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Uperin 1.1.
DE
OS
     Uperoleia inundata (Floodplain toadlet).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Uperoleia.
OX
     NCBI TaxID=104953;
RN
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
     Bradford A.M., Raftery M.J., Bowie J.H., Tyler M.J., Wallace J.C.,
RA
RA
     Adams G.W., Severini C.;
RT
     "Novel uperin peptides from the dorsal glands of the australian
RT
     floodplain toadlet Uperoleia inundata.";
RL
     Aust. J. Chem. 49:475-484(1996).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- MASS SPECTROMETRY: MW=1208; METHOD=FAB.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
    MOD RES
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
                          1
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1226 MW; 3293693E59CDD457 CRC64;
```

DR

```
Ouery Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
  Matches
             1; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 A 1
Qу
            2 A 2
Db
RESULT 50
TKN1 UPERU
     TKN1 UPERU
                    STANDARD;
                                   PRT:
                                           11 AA.
     P08612;
AC
DT
     01-AUG-1988 (Rel. 08, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Uperolein.
OS
     Uperoleia rugosa (Wrinkled toadlet).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Uperoleia.
     NCBI TaxID=8368;
OX
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=75131227; PubMed=1120493;
RX
     Anastasi A., Erspamer V., Endean R.;
RA
     "Structure of uperolein, a physalaemin-like endecapeptide occurring
RT
     in the skin of Uperoleia rugosa and Uperoleia marmorata.";
RT
     Experientia 31:394-395(1975).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     InterPro; IPR008215; Tachykinin.
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1252 MW;
                                  32867C3E59CDD457 CRC64;
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
  Matches
                                 0; Mismatches
             1; Conservative
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 A 1
Qу
Db
            6 A 6
```

```
TKN2 PSEGU
     TKN2 PSEGU
                    STANDARD;
                                   PRT;
ID
                                            11 AA.
AC
     P42987;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Kassinin-like peptide K-II (PG-KII).
DE
     Pseudophryne guentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
     Myobatrachinae; Pseudophryne.
OC
     NCBI TaxID=30349;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=90287814; PubMed=2356157;
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
     Peptides 11:299-304(1990).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
        muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; C60409; C60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
KW
     Pyrrolidone carboxylic acid.
FT
    MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
     SEOUENCE
SO
                11 AA;
                        1246 MW; 3A247C37C9CB1AB7 CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
 Matches
             1; Conservative
                              0; Mismatches
                                                  0;
                                                       Indels
                                                                  0; Gaps
                                                                               0;
Qу
            2 G 2
            9 G 9
Db
RESULT 52
TKN2 UPERU
     TKN2 UPERU
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P08616;
DT
     01-AUG-1988 (Rel. 08, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
```

RESULT 51

```
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Rugosauperolein II ([Lys5, Thr6]physalaemin).
OS
     Uperoleia rugosa (Wrinkled toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Uperoleia.
OC
     NCBI TaxID=8368;
OX
RN
     [1]
     SEOUENCE.
RP
RC
     TISSUE=Skin secretion;
     MEDLINE=80223080; PubMed=7389029;
RX
     Nakajima T., Yasuhara T., Erspamer V., Erspamer G.F., Negri L.;
RA
RT
     "Physalaemin- and bombesin-like peptides in the skin of the
RT
     Australian leptodactylid frog Uperoleia rugosa.";
     Chem. Pharm. Bull. 28:689-695(1980).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
SQ
                11 AA; 1270 MW;
                                  3293693E59D1A327 CRC64;
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                              0;
                                                                      Gaps
            1 A 1
Qy
             2 A 2
RESULT 53
TKN3 PSEGU
     TKN3 PSEGU
                    STANDARD;
                                   PRT;
                                            11 AA.
ID
AC
     P42988;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Kassinin-like peptide K-III (PG-KIII).
OS
     Pseudophryne quentheri (Guenther's toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=90287814; PubMed=2356157;
```

```
Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
     the Australian frog Pseudophryne guntheri.";
RT
RL
     Peptides 11:299-304(1990).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; D60409; D60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
                                  PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
                   1
                          1
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1268 MW; 3DBA7C37C9CB1457 CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
                                0; Mismatches
                                                  0; Indels
  Matches
            1; Conservative
                                                                  0; Gaps
                                                                              0;
            2 G 2
Qу
            9 G 9
Db
RESULT 54
TKN4 PSEGU
     TKN4 PSEGU
                                   PRT;
ID
                    STANDARD;
                                           11 AA.
AC
     P42989:
DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Substance P-like peptide I (PG-SPI).
OS
     Pseudophryne guentheri (Guenther's toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
     MEDLINE=90287814; PubMed=2356157;
RX
RA
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
     Peptides 11:299-304(1990).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
```

```
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; E60409; E60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1294 MW; 3A247C2CC9CB1AB7 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
                                 0; Mismatches
                                                                               0;
             1; Conservative
                                                    0;
                                                       Indels
                                                                  0; Gaps
            2 G 2
Qу
              -
            9 G 9
RESULT 55
TKN5 PSEGU
     TKN5 PSEGU
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
     P42990;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DÈ
     Substance P-like peptide II (PG-SPII).
     Pseudophryne guentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
     MEDLINE=90287814; PubMed=2356157;
RX
RA
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; F60409; F60409.
     InterPro; IPR002040; Tachy Neurokinin.
DR
```

```
InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
FT
     MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEOUENCE
                11 AA;
                        1293 MW; 3A247C2CC9CB1457 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
  Matches
                                                   0; Indels
             1; Conservative
                              0; Mismatches
                                                                  0; Gaps
                                                                              0;
Qу
            2 G 2
Db
            9 G 9
RESULT 56
TKNA CHICK
     TKNA CHICK
                                   PRT;
                                           11 AA.
ID
                    STANDARD;
AC
     P19850;
DT
     01-FEB-1991 (Rel. 17, Created)
     01-FEB-1991 (Rel. 17, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P.
DΕ
OS
     Gallus gallus (Chicken).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC
OC
     Gallus.
     NCBI TaxID=9031;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Intestine;
     MEDLINE=88204263; PubMed=2452461;
RX
RA
     Conlon J.M., Katsoulis S., Schmidt W.E., Thim L.;
RT
     "[Arg3]substance P and neurokinin A from chicken small intestine.";
RL
     Regul. Pept. 20:171-180(1988).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; JN0023; JN0023.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
FT
                                  AMIDATION.
     MOD RES
                  11
                         11
     SEQUENCE
                11 AA; 1377 MW; 21487FE3C9D6C6C7 CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
             1; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
```

```
2 G 2
Qу
            9 G 9
Db
RESULT 57
TKNA GADMO
     TKNA GADMO
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P28498;
DT
     01-DEC-1992 (Rel. 24, Created)
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DΕ
     Substance P.
OS
     Gadus morhua (Atlantic cod).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Paracanthopterygii; Gadiformes; Gadidae; Gadus.
OX
     NCBI TaxID=8049;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Brain;
     MEDLINE=92298992; PubMed=1376687;
RX
     Jensen J., Conlon J.M.;
RA
RT
     "Substance-P-related and neurokinin-A-related peptides from the brain
RT
     of the cod and trout.";
     Eur. J. Biochem. 206:659-664(1992).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR: S23306; S23306.
DR
DR
     InterPro; IPR002040; Tachy Neurokinin.
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
                                  AMIDATION (BY SIMILARITY).
FΤ
     MOD RES
                  11
                         11
     SEQUENCE
SQ
                11 AA; 1315 MW;
                                  214860D759D6C6C7 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
            6 K 6
Qу
Db
            1 K 1
RESULT 58
TKNA HORSE
     TKNA HORSE
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P01290;
DT
     21-JUL-1986 (Rel. 01, Created)
```

21-JUL-1986 (Rel. 01, Last sequence update)

DT

```
10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P.
DE
     TAC1 OR NKNA OR TAC2 OR NKA.
GN
     Equus caballus (Horse), and
OS
     Cavia porcellus (Guinea pig).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
OC
     NCBI TaxID=9796, 10141;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     SPECIES=Horse;
RA
     Studer R.O., Trzeciak A., Lergier W.;
     "Isolation and amino-acid sequence of substance P from horse
RT
RT
     intestine.";
RL
     Helv. Chim. Acta 56:860-866(1973).
RN
     [2]
RP
     SEOUENCE.
RC
     SPECIES=C.porcellus;
     MEDLINE=90044685; PubMed=2478925;
RX
RA
     Murphy R.;
     "Primary amino acid sequence of guinea-pig substance P.";
RT
RL
     Neuropeptides 14:105-110(1989).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; A01558; SPHO.
DR
     PIR; A60654; A60654.
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEOUENCE
                11 AA; 1349 MW; 3E757FE3C9D6C6C7 CRC64;
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
             1; Conservative 0; Mismatches
  Matches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0:
            6 K 6
Qу
              1
Db
            3 K 3
RESULT 59
TKNA ONCMY
                                   PRT;
     TKNA ONCMY
                    STANDARD;
                                            11 AA.
ID
     P28499;
AC
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
     Substance P.
DΕ
OS
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
```

```
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
     NCBI TaxID=8022;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Brain;
     MEDLINE=92298992; PubMed=1376687;
RX
     Jensen J., Conlon J.M.;
RA
     "Substance-P-related and neurokinin-A-related peptides from the brain
RT
     of the cod and trout.";
RT
     Eur. J. Biochem. 206:659-664(1992).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; S23308; S23308.
     InterPro; IPR002040; Tachy_Neurokinin.
DR
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
                        11
FT
     MOD RES
                                  AMIDATION (BY SIMILARITY).
                  11
     SEQUENCE
SQ
                11 AA; 1358 MW; 214860DEC9D6D1F7 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
  Matches
            1; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            6 K 6
Db
            1 K 1
RESULT 60
TKNA RANCA
ID
     TKNA RANCA
                                           11 AA.
                    STANDARD;
                                   PRT:
     P22688;
AC
DT
     01-AUG-1991 (Rel. 19, Created)
DT
     01-AUG-1991 (Rel. 19, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ranatachykinin A (RTK A).
DE
OS
     Rana catesbeiana (Bull frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OX
     NCBI TaxID=8400;
RN
     [1]
RP
     SEQUENCE, AND SYNTHESIS.
RC
     TISSUE=Brain, and Intestine;
RX
     MEDLINE=91254337; PubMed=2043143;
RA
     Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
RT
     "Isolation of four novel tachykinins from frog (Rana catesbeiana)
RT
     brain and intestine.";
RL
     Biochem. Biophys. Res. Commun. 177:588-595(1991).
```

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RN
     [2]
     SEQUENCE.
RP
     TISSUE=Intestine;
RC
     MEDLINE=94023216; PubMed=8210506;
RX
     Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
RA
     "Four novel tachykinins in frog (Rana catesbeiana) brain and
RT
     intestine.";
RT
     Regul. Pept. 46:81-88(1993).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; A61033; A61033.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Tachykinin; Neuropeptide; Amidation.
FT
     MOD RES
                  11
                                  AMIDATION.
                        11
     SEQUENCE
                11 AA; 1311 MW;
                                  200D60CC59D40AB7 CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
                                                                  0; Gaps
                                0; Mismatches
                                                  0; Indels
                                                                              0;
  Matches
            1; Conservative
            6 K 6
Qу
            1 K 1
Db
RESULT 61
TKNA RANRI
     TKNA RANRI
                                   PRT;
ID
                    STANDARD;
                                           11 AA.
     P29207;
AC
DT
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Ranakinin (Substance-P-related peptide).
OS
     Rana ridibunda (Laughing frog) (Marsh frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OX
     NCBI TaxID=8406;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Brain;
     MEDLINE=92044543; PubMed=1658233;
RX
     O'Harte F., Burcher E., Lovas S., Smith D.D., Vaudry H., Conlon J.M.;
RA
RT
     "Ranakinin: a novel NK1 tachykinin receptor agonist isolated with
RT
     neurokinin B from the brain of the frog Rana ridibunda.";
RL
     J. Neurochem. 57:2086-2091(1991).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
```

```
-!- SUBCELLULAR LOCATION: Secreted.
CC
    -!- SIMILARITY: Belongs to the tachykinin family.
CC
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Tachykinin; Neuropeptide; Amidation.
    MOD RES
                  11
                        11
                                 AMIDATION.
FT
    SEOUENCE
               11 AA; 1352 MW; 3A2460CC59D40B07 CRC64;
SO
 Query Match
                           9.1%; Score 1; DB 1; Length 11;
 Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
 Matches
           1; Conservative
                              0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
            6 K 6
Qу
            1 K 1
RESULT 62
TKNA SCYCA
     TKNA SCYCA
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P41333;
     01-FEB-1995 (Rel. 31, Created)
DT
     01-FEB-1995 (Rel. 31, Last sequence update)
DТ
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P.
DE
     Scyliorhinus canicula (Spotted dogfish) (Spotted catshark).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
OC
     Elasmobranchii; Galeomorphii; Galeoidea; Carcharhiniformes;
OC
OC
     Scyliorhinidae; Scyliorhinus.
OX
     NCBI TaxID=7830;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Brain;
     MEDLINE=93292508; PubMed=7685693;
RX
     Waugh D., Wang Y., Hazon N., Balment R.J., Conlon J.M.;
RA
     "Primary structures and biological activities of substance-P-related
RT
     peptides from the brain of the dogfish, Scyliorhinus canicula.";
RT
     Eur. J. Biochem. 214:469-474(1993).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; S33300; S33300.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
FT
     MOD RES
                  11
                        11
                                  AMIDATION.
                11 AA; 1278 MW; 214860DEC9D6D867 CRC64;
SQ
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
            1; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
  Matches
```

```
Qу
Db
            1 K 1
RESULT 63
TKND RANCA
     TKND RANCA
                    STANDARD:
                                   PRT:
                                            11 AA.
AC
     P22691;
DT
     01-AUG-1991 (Rel. 19, Created)
DT
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Ranatachykinin D (RTK D).
OS
     Rana catesbeiana (Bull frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
OX
     NCBI TaxID=8400;
RN
     [1]
     SEQUENCE, AND SYNTHESIS.
RΡ
RC
     TISSUE=Intestine;
     MEDLINE=91254337; PubMed=2043143;
RX
     Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
RA
     "Isolation of four novel tachykinins from frog (Rana catesbeiana)
RT
     brain and intestine.";
RT
     Biochem. Biophys. Res. Commun. 177:588-595(1991).
RL
RN
     [2]
     SEQUENCE.
RP
     TISSUE=Intestine;
RC
     MEDLINE=94023216; PubMed=8210506;
RX
     Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
RA
RT
     "Four novel tachykinins in frog (Rana catesbeiana) brain and
RT
     intestine.";
     Regul. Pept. 46:81-88(1993).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; D61033; D61033.
DR
DR
     InterPro; IPR002040; Tachy Neurokinin.
     PROSITE; PS00267; TACHYKININ; FALSE NEG.
DR
KW
     Tachykinin; Neuropeptide; Amidation.
                                  AMIDATION.
FT
     MOD RES
                  11
                         11
     SEQUENCE
                11 AA; 1350 MW;
                                  3A34256C59D40B07 CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                  0; Mismatches
                                                                   0; Gaps
                                                                               0;
  Matches
             1; Conservative
                                                    0;
                                                        Indels
            6 K 6
Qу
            1 K 1
Db
```

6 K 6

```
TKN ELEMO
    TKN ELEMO
                    STANDARD;
                                   PRT:
                                            11 AA.
ΙD
     P01293;
AC
     21-JUL-1986 (Rel. 01, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Eledoisin.
OS
     Eledone moschata (Musky octopus) (Ozaena moschata), and
     Eledone cirrhosa (Curled octopus) (Ozaena cirrosa).
OS
     Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC
OC
     Octopodiformes; Octopoda; Incirrata; Octopodidae; Eledone.
OX
    NCBI TaxID=6641, 102876;
RN
     [1]
RP
     SEQUENCE.
RA
     Anastasi A., Erspamer V.;
RT
     "The isolation and amino acid sequence of eledoisin, the active
     endecapeptide of the posterior salivary glands of Eledone.";
RT
     Arch. Biochem. Biophys. 101:56-65(1963).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; A01561; EOOC.
DR
     PIR; B01561; EOOCC.
DR
     PDB; 1MXQ; 18-FEB-03.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Pyrrolidone carboxylic acid;
KW
KW
     3D-structure.
                   1
                          1
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
     MOD RES
                                  AMIDATION.
FT
                  11
                         11
     SEQUENCE
                11 AA; 1206 MW;
                                  570D7C2559CDDAA3 CRC64;
SO
                            9.1%;
                                 Score 1; DB 1; Length 11;
 Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                    0;
                                                                  0; Gaps
                                                                               0;
             1; Conservative
                                 0; Mismatches
                                                       Indels
  Matches
            3 S 3
Qу
            3 S 3
Db
RESULT 65
TKN PHYFU
                                    PRT;
                                            11 AA.
ID
     TKN PHYFU
                    STANDARD;
AC
     P08615;
     01-AUG-1988 (Rel. 08, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Physalaemin.
     Physalaemus fuscumaculatus (Neotropical frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Leptodactylidae;
OC
OC
     Leptodactylinae; Physalaemus.
```

```
NCBI TaxID=8378;
OX
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=66076612; PubMed=5857249;
RX
     Erspamer V., Anastasi A., Bertaccini G., Cei J.M.;
RA
     "Structure and pharmacological actions of physalaemin, the main
RT
     active polypeptide of the skin of Physalaemus fuscumaculatus.";
RT
     Experientia 20:489-490(1964).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; S07201; S07201.
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
                          1
FT
     MOD RES
                   1
     MOD RES
                  11
                         11
                                  AMIDATION.
FT
                11 AA; 1283 MW; 3293693E59C33457 CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
 Matches
             1; Conservative
            1 A 1
Qy
            2 A 2
RESULT 66
UF05 MOUSE
     UF05 MOUSE
                                   PRT:
                    STANDARD;
                                            11 AA.
ID
     P38643;
AC
     01-OCT-1994 (Rel. 30, Created)
DT
     01-OCT-1994 (Rel. 30, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Unknown protein from 2D-page of fibroblasts (P48) (Fragment).
DE
OS
     Mus musculus (Mouse).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX
     NCBI TaxID=10090;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Fibroblast;
     MEDLINE=95009907; PubMed=7523108;
RX
     Merrick B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;
RA
     "Separation and sequencing of familiar and novel murine proteins
RT
     using preparative two-dimensional gel electrophoresis.";
RT
     Electrophoresis 15:735-745(1994).
RL
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 5.5, its MW is: 48 kDa.
CC
```

```
NON TER
FT
                 11
                         11
     SEQUENCE
               11 AA; 1328 MW; E54835E5CAAABAFA CRC64;
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
 Matches
            1; Conservative 0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
            6 K 6
Qу
             - [
            1 K 1
Db
RESULT 67
ULAG HUMAN
    ULAG HUMAN
                   STANDARD;
                                   PRT;
                                          11 AA.
AC
     P31933;
DT
     01-JUL-1993 (Rel. 26, Created)
     01-JUL-1993 (Rel. 26, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DΕ
    Unknown protein from 2D-page of liver tissue (Spot 118) (Fragment).
OS
    Homo sapiens (Human).
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
    NCBI TaxID=9606;
RN
    [1]
    SEQUENCE.
RP
    TISSUE=Liver;
RC
    MEDLINE=94147969; PubMed=8313870;
RX
    Hughes G.J., Frutiger S., Paquet N., Pasquali C., Sanchez J.-C.,
RA
    Tissot J.-D., Bairoch A., Appel R.D., Hochstrasser D.F.;
RA
    "Human liver protein map: update 1993.";
RT
    Electrophoresis 14:1216-1222(1993).
RL
CC
    -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
        protein is: 5.5, its MW is: 34 kDa.
CC
    SWISS-2DPAGE; P31933; HUMAN.
DR
    Siena-2DPAGE; P31933; -.
DR
FT
    NON TER
                 11
                        11
     SEQUENCE
               11 AA; 1219 MW; EDABD37F272DDB0A CRC64;
 Query Match
                          9.1%; Score 1; DB 1; Length 11;
                         100.0%; Pred. No. 1.1e+05;
 Best Local Similarity
                               0; Mismatches 0; Indels
                                                                             0;
 Matches
            1; Conservative
                                                                0; Gaps
Qу
            1 A 1
Db
            6 A 6
RESULT 68
UXB2 YEAST
    UXB2 YEAST
ID
                   STANDARD;
                               PRT;
                                          11 AA.
AC
    P99013;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
    15-MAR-2004 (Rel. 43, Last annotation update)
DT
    Unknown protein from 2D-page (Spot 2D-000K2F) (Fragment).
DΕ
OS
     Saccharomyces cerevisiae (Baker's yeast).
```

```
OC
     Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OX
     NCBI TaxID=4932;
RN
     [1]
RP
     SEQUENCE.
     STRAIN=X2180-1A;
RC
     Sanchez J.-C., Golaz O., Schaller D., Morch F., Frutiger S.,
RA
     Hughes G.J., Appel R.D., Deshusses J., Hochstrasser D.F.;
RA
     Submitted (AUG-1995) to Swiss-Prot.
RL
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 6.20, its MW is: 9.2 kDa.
CC
     SWISS-2DPAGE; P99013; YEAST.
DR
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1328 MW;
                                  EC38021C0DCB42DA CRC64;
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                               0;
                                                                      Gaps
            5 V 5
Qу
                                                                               ł
            2 V 2
Db
RESULT 69
CX5A CONAL
     CX5A CONAL
                    STANDARD;
                                    PRT;
                                            11 AA.
ΙD
AC
     P58848;
     28-FEB-2003 (Rel. 41, Created)
DT
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DΕ
     Conotoxin au5a.
OS
     Conus aulicus (Court cone).
OC
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
     Apoqastropoda; Caenoqastropoda; Sorbeoconcha; Hypsoqastropoda;
OC
OC
     Neogastropoda; Conoidea; Conidae; Conus.
OX
     NCBI TaxID=89437;
RN
     [1]
RP
     SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RC
     TISSUE=Venom;
     MEDLINE=99452958; PubMed=10521453;
RX
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RT
     "The T-superfamily of conotoxins.";
RL
     J. Biol. Chem. 274:30664-30671(1999).
RN
     [2]
RP
     ERRATUM.
RA
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     J. Biol. Chem. 274:36030-36030(1999).
RL
CC
     -!- FUNCTION: Causes dorsal fins drooping in fish. No effect is
CC
         observed when injected into mice.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
CC
     -!- MASS SPECTROMETRY: MW=1436.6; METHOD=LSIMS.
```

Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;

OC

```
PIR; A59146; A59146.
DR
KW
     Toxin.
FT
     DISULFID
                   3
                         10
FT
     DISULFID
                11 AA; 1441 MW; 21A36775440059D7 CRC64;
     SEQUENCE
SQ
  Query Match
                           0.0%; Score 0; DB 1; Length 11;
                          0.0%; Pred. No. 1.4e+05;
  Best Local Similarity
             0; Conservative
                                 0; Mismatches
                                                  1; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
Qу
            1 A 1
Db
            1 F 1
RESULT 70
TIN1 HOPTI
ΙD
     TIN1 HOPTI
                    STANDARD;
                                   PRT;
                                           11 AA.
     P82651;
AC
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DE
     Tigerinin-1.
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
OC
     Hoplobatrachus.
OX
     NCBI TaxID=103373;
RN
     [1]
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RP
RC
     TISSUE=Skin secretion;
RX
     PubMed=11031261;
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
     Devi A.S., Nagaraj R., Sitaram N.;
RA
RT
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
     tigerina.";
RT
RL
     J. Biol. Chem. 276:2701-2707(2001).
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- MASS SPECTROMETRY: MW=1342; METHOD=MALDI.
CC
KW
     Amphibian defense peptide; Antibiotic; Fungicide; Amidation.
FT
                         10
     DISULFID
                   2
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1344 MW;
                                  A2087DC960476056 CRC64;
SQ
                         0.0%; Score 0; DB 1; Length 11;
  Query Match
                          0.0%; Pred. No. 1.4e+05;
  Best Local Similarity
                                 0; Mismatches
                                                                              0;
  Matches
             0; Conservative
                                                1; Indels
                                                                  0; Gaps
            1 A 1
Qу
Db
            1 F 1
```

-!- SIMILARITY: Belongs to the conotoxin T-superfamily.

CC

Search completed: April 8, 2004, 15:47:19
Job time : 5.15385 secs